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8. HRVATSKI KONGRES ENDOSKOPSKE KIRURGIJE S MEĐUNATODNIM SUDJELOVANJEM
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DOBRODOŠLI NA 8. HRVATSKI KONGRES ENDOSKOPSKE KIRURGIJE S MEĐUNARODNIM SUDJELOVANJEM

Poštovani kolegice i kolege,

Dobro došli na **8. hrvatski kongres endoskopske kirurgije s međunarodnim sudjelovanjem**.

Organizatori, Hrvatsko društvo za endoskopsku kirurgiju pri Hrvatskom liječničkom zboru i Klinika za kirurgiju Kliničke bolnice "Sestre milosrdnice" Vaši su domaćini 13 godina, nakon 1. simpozija endoskopske kirurgije održanog također u Zagrebu.

Pozdravljamo sve Vas, istinske zaljubljenike u endoskopsku kirurgiju, generaciju kirurga koja je pionirski prionula inauguraciji minimalno invazivne kirurgije, a potom vizionarski sudjelovala u ekspanziji endoskopske kirurgije u Hrvatskoj i ovom dijelu Europe.

Pred Vama je zbornik sažetaka u časopisu "Acta Chirurgica Croatica" s više od 180 naslova. Ovako veliki broj prispjelih sažetaka ogroman je poticaj za nas iz Hrvatskog društva za endoskopsku kirurgiju, a posebice i za Organizacijski odbor Kongresa.

Pozivamo Vas, poštovani kolegice i kolege, da cjelovite radove objavite u našem kirurškom časopisu. Stručni i znanstveni radovi objavljeni u medicinskim časopisima nisu alibi za neželjene ishode naših operacijskih zahvata. Oni su pomoć, opomena i putokaz kako treba raditi, što promijeniti i čega se treba čuvati.

Hrvatsko društvo za endoskopsku kirurgiju primljeno je 2006. godine u članstvo Europskog društva endoskopskih kirurga. S više od 80 članova, među najbrojnijim smo nacionalnim društvima u Europi. Izborimo se za naše mjesto unutar Europskog endoskopskog kirurškog društva, ali i za drugačije vrednovanje minimalno invazivne kirurgije u Hrvatskoj.

U ime Hrvatskog društva za endoskopsku kirurgiju Hrvatskog liječničkog zboru, Organizacijskog odbora ovog kongresa i svih liječnika Klinike za kirurgiju Kliničke bolnice "Sestre milosrdnice" želim Vam sretan Božić i sretnu novu godinu.

Zagreb, 20.11.2006.

Prof. dr. sc. **Miroslav Bekavac-Bešlin**
Predsjednik Organizacijskog odbora i
Predsjednik HDEK

WELCOME TO THE 8th CROATIAN CONGRESS OF ENDOSCOPIC SURGERY WITH INTERNATIONAL PARTICIPATION

Dear colleagues,

Welcome to the **8th Croatian congress of Endoscopic surgery with international participation**.

Croatian Society for Endoscopic Surgery, a part of Croatian Medical Association and Department of Surgery University Hospital "Sisters of Charity" are your hosts after 13 years since the first symposium was held also in Zagreb.

We greet you all: people who are truly in love with Endoscopic Surgery, generation of surgeons who pioneered wholeheartedly the techniques of minimal invasion surgery and which then visionary participated in expansion of Endoscopic surgery in Croatia and this part of Europe.

We present to you summary in the magazine "Acta Chirurgica Croatica" with more then 180 titles. Such great amount of summaries is a great motivator for us members of Croatian Society of Endoscopic Surgery and especially for the Organizing committee.

We invite you dear colleagues to publish the full length of your works in our surgical magazine. Professional and scientific work which is published in medical magazines are not an alibi for unwanted results of our operational procedures. They are a help, reminder and a guide as to what to do, what to change and what one needs to watch out for.

Croatian Society of Endoscopic Surgery was accepted into the European Society of Endoscopic Surgery in 2006. With over 80 members we are the biggest natioanl society in Europe. Let's create a place within the European Endoscopic Surgical Society but also for a different evaluation of the minimally invasive surgery in Croatia.

In the name of the Croatian Society of Endoscopic Surgery, Croatian Medical Association, Organizing committee and all doctors of the Department of Surgery, University Hospital " Sisters of Charity " I wish you a Marry Christmas and a Happy New Year.

Zagreb, November 20, 2006

Professor **Miroslav Bekavac-Bešlin**, M.D., Ph.D.
President of the Organizing Committee and
President of the Croatian Society of Endoscopic Surgery

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2. LAPAROSKOPSKE OPERACIJE AKUTNIH ABDOMINALNIH STANJA I KOMPLIKACIJE. PRAVNI ASPEKTI ISHODA MEDICINSKOG POSTUPKA
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2. ENDOSKOPSKI ZAHVATI U ABDOMINALNOJ KIRURGIJI
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   ABDOMEN 2: Glavić Ž, Marušić F, Glavan E, Grgić T

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    Moderatori / Moderators: Paladino J, Melada A, Rotim K

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TEME POZVANIH PREDAVAČA / INVITED SPEAKERS TOPICS:

MIHALJEVIĆ TOMISLAV (SAD / USA):
Minimalno invazivna kardiokirugija - standardi i nova dostignuća
Minimally invasive cardiac surgery - current status and new developments

MILLER KARL (Austrija / Austria):
Endoskopsko liječenje patološke pretilosti - europski standardi
Endoscopic bariatric surgery - European standards

RICE W. THOMAS (SAD / USA):
Endoskopska kirurgija u liječenju benignih bolesti jednjaka
Endoscopic surgery for benign oesophageal disease

RUBIN MOSHE (Izrael / Israel):
Napredak u endoskopskoj kirurgiji i komplikacije - izraelska iskustva
The progress and complications in laparoscopic surgery in a small country - Israel

GOSTI KONGRESA / CONGRESS GUESTS

PIGNATA GIUSTO (Italija / Italy):
Laparoskopska kirurgija organa dna zdjelice
Laparoscopic surgery of pelvic floor organs

THORBECK CARLOS VARA (Španjolska / Spain):
Laparoskopska operacija paraezofagealne hernije u starijih bolesnika
Laparoscopic operation for paraesophageal hernias in elderly patients

HERBST FRIEDRICH (Austrija / Austria):
Laparoskopsko liječenje bolesti kolona
Endoscopic colon surgery

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Doc. dr. sc. NADO VODOPIJA

SADRŽAJ

EDUKACIJA I KONTROLA KVALITETE U ENDOSKOPSKOJ KIRURGIJI

ENDOSCOPIC SURGERY EDUCATION AND OUTCOMES ANALYSIS IN ENDOSCOPIC SURGERY

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ENDOSCOPIC SURGERY - SIMULATORS AS A MODE OF EDUCATION

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Surgical training combines theory with manual skills and procedural experience, the latter two through Halstedian mentorship. In addition, Minimally Invasive Surgery (MIS) requires that student develops depth perception, hand-eye coordination, and fine motor skills, which together may increase both the time and cost of education. In the past this additional experience was predominantly acquired by operating on cadavers/animals, or by analyzing video recordings of operations. Today this can be complemented with computer simulations. Early versions of simulators (video trainer box) aimed to improve fine motor skills on simplified tasks. Later, Virtual Reality Simulators (first generation VRS) offered similar simplified tasks using computer animation. With an increase in computing power came another generation, which replicated procedural tasks such as cholecystectomy, using Multi Slice Computed Tomography (MSCT) pictures and cartoon graphics to reconstruct the operating field. These second generation systems are currently being used to evaluate performance by measuring time, error rates, economy of movement, and economy of diathermy. The remaining challenge is to improve haptic perception. Although relatively few studies have been conducted of a significant enough number of trainees to support any particular simulator, most seem to suggest an improvement in fine motor skills and orientation in the operating room. Perhaps the greatest benefit is the possibility of limitless repetition, without a posing a corresponding threat to patients.

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INTRAOPERATIVNE KOMPLIKACIJE KOD LAPAROSKOPSKE KOLECISTEKTOMIJE U OPĆOJ BOLNICI DUBROVNIK

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Aim: During the last 10 years when we operate cholecystectomy laparoscopically. Unfortunatelly complication during the operation must to be. Our target is find the number,the frequency and the seriosly of complications during this operation in our General Hospital in Dubrovnik
Methods and Patients: In the period betwen 2003-2006 we operated cholecystectomy laparoscopically with the diagnosis of acute or chronic chlecystitis .
Of this 28 % were male and 72% female.About 17,3 % must to operate with a clasical methods. The patients had 57 years old promedy .The mens were oldier 4 years than womens
Results: In 8 patiens we had complications during this operation:
In 2 patiens we had cut the choledocus(0.5%). During the operations we find it and resolve it with a clasical conversion, suture and T dren choledocostomy.
In 2 patiens we had and incontrolable bleeding from the gallblader bed.
In one patient and perforation of the upper angle of the duodenum.This complication we discovered one day after the operation.
In one patient drops the clips of the cisticus .We discovery this complication a day before.
In both case with a diffuse biliar peritonitis
Conclusions: In every case of complication, the operater have more than 3 years of experience in cholecystectomy laparoscoply. This means that carefully and slowly treatman specially during this operation is the key of a good result no mattern how experience the operater have. At least one third of injuries are not related to inexperience but may reflect fundamental errors in the technique of laparoscopic cholecystectomy as practiced by a broad population of surgeons in the United States.
Frequently the cholecystitis had chronics change with hards problems to diferenciate structures.
May be we must to ask ourself where is the barrier to conversion or what patient can operate laparoscopically.

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OUR EXPERIENCE WITH VIRTUAL ENDOSCOPY OF PARANASAL SINUSES. DEVELOPMENT OF NEW COMPUTER TECHNOLOGIES OFFERS A VALUABLE ADDITIONAL TOOLS IN DIAGNOSTIC AND PREOPERATIVE PLANNING IN HEAD AND NECK SURGERY

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The main goal of our work was to evaluate advantages and disadvantages of virtual endoscopy (VE) techniques in routinely diagnostic and preoperative management of patients with various sinus diseases or head traumas in our practice.
Methods: Fly through algorythm was preformed using an Xeon-based workstation on data sets created from axial CT-images acquired from patients managed on department of otorhinolaryngology and department of radiology. Images were created using Siemens Somatom Emotion 16 continiously rotating helical CT scanner and archived in DICOM format on appropriate optical media. Standard software package for image analysis Syngo CT 2006G was applied in 3D analysis.
Results: We performed VE of maxillary, frontal and sphenoid sinuses and also nasal cavity of patients with chronic sinus diseases as a part of diagnostic or preoperative management. Furthermore, we examined three patients with head traumas involving paranasal sinuses, one with multifragment fracture of maxillary sinus wall, one with fracture of the ethmoid and lamina papiracea and one with fracture of sphenoid sinus wall. VE results was then compared by those obtained with standard diagnostic procedures.
Conclusions: VE or "fly-through" methods which combine the features of endoscopic viewing and cross-sectional volumetric imaging may provide an advance in diagnostics and management of our patients. Preoperative VE may lead to more effective and safer endoscopic procedures. VE can also be applied for training and familiarize the operator with endoscopic anatomic appearance. Virtual endoscopic presentation of image data enables the operator not only to explore the inner wall surfaces but also to navigate inside the virtual organs extracted from CT or MR images. Interactive display of correlated 2D and 3D data in a four-window format may assist the endoscopist in performing various image guided procedures. The current advance in computer technology makes virtual endoscopy available not only on large clinics but also for routine work in small hospitals.

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VIRTUAL BRONCHOSCOPY APPLIANCE IN DIAGNOSTICS AND PREOPERATIVE MANAGEMENT - OUR EXPERIENCE AND POSSIBLE CLINICAL APPLICATION

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Goals: To assess possibilities of virtual bronchoscopy (VB) appliance in the environment of regional general hospital.
Methods: We performed computer assisted virtual endoscopy, using the fly-through function of Syngo CT 2006G standard software package for analysis CT and MRI images, in order to evaluate tracheobronchial status of 63-year-old male patient and compare results with tracheobronchial status of healthy 73-year-old female and 65-year old female after cancer resection. Siemens Somatom Emotion 16 system was used for data acquisition. Data in DICOM format was processed on Xeon-based workstation.
Results: Obtained VB findings were accurate and comparable with those acquired with fiber optic classical bronchoscopy. A 63-year-old male patient was admitted in intensive care unit due to massive pulmonary embolism. No significant patology in tracheobronchial tree was found in this case, however, parenchymal tumor of left lower pulmonary lobe in pulmonary parenchym was revealed. Pulmonar embolism was found on CT angiography. Patient was referred to clinic for chest surgery. Second female patient had no lung or bronchial patology whereas third patient underwent chest surgery five years ago due bronchial cancer and VB examination presented status that we expected accordingly.

Conclusions: Multislice helical CT generated virtual bronchoscopy represents one of the most recent developments in three-dimensional visualisation techniques which allows non-invasive, fast and relatively accurate 3D evaluation of airways down to the sixth- or seventh- generation. VB is able to evaluate tracheobronchial areas inaccessible to the standard flexible bronchoscope. VB may replace classical bronchoscopy when this technique is considered too invasive for patient, what is especially important in small children.

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EDUCATION IN BASIC LAPAROSCOPIC PROCEDURES OF GENERAL SURGERY RESIDENTS IN CROATIA

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Aim. Current general surgery residence plan in Croatia encompasses one months of endoscopic surgery with only modest training on phantom, pig's liver and as assistent during laparoscopic cholecystectomy. The aim was to recognize modern arts of skills' training in laparoscopic surgery worldwide and to apply them to Croatian residents' education system.
Methods. Review of Croatian laws considering surgical residents education and training and review of recent published literature.
Results. Aquisition of skills follows learning curve. Level of motor skills varies widely among surgical residents. Spatial orientation abilities correlate with the rate of learning and learning potential during the learning curve for basic laparoscopic skills of bimanual transferring using monocular optical system. The learning curve also reveals that the simulator training is useful for subjects with no or limited endoscopic experience. Visual reality simulation is useful and feasible method to prepare residents until required competence level is achieved. It is desirable to acquire compentence in eye-hand coordination prior to training on expensive animal models. Courses with animal models are also important tool for training. Previous endoscopic camera navigation improves motor skills to more than basic level.
Conclusion. Training for laparoscopic surgery is essential to perform an operation safely and to avoid technical problems and complications. According to our findings duration of residence in endoscopic surgery should be prolonged as it represents treatment modality of future. The following algorytham should be introduced in Croatian surgical residents' education in basic laparoscopic skills: 1) visual reality simulation / simulator training to improve eye-hand coordination, 2) training on animal models, 3) endoscopic camera navigation, 4) independent realization of basic laparoscopic procedures under supervision on patients.

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QUALITY AND SAFETY IN SURGICAL PRACTICE

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Introduction: Quality of surgical practice comes more and more in the focus of public interest, recently. It is the consumerism that increases the intensity of this interest. Nowadays, patients ask for better, more available and, if possible, less costing health-care. Furthermore, besides patients, the government and the medical personal, want a higher quality of health-care.
Methods and material: the author will give a brief introduction of the concept and present recent data about this issue in a review form. Projects from other surgical societies, regarding this topic, will be presented.
Results: According to Donabedian, three main components constitute and have the impact on quality: the structure, the process and last but not least, the outcomes. In surgical practice outcomes are clearly visible and easily measurable. This is the case in endoscopic surgery, also. The process of care in endoscopic surgery includes intensive use of high technology which increases the possibilitiy of a complication or error. Results of surgical procedures are highly dependant on the structure and the process at the surgical units.
Conclusion: The inititative for the improvement of quality in surgical practice becomes mandatory and far more important when compared with the treatment of one diseases or one surgical procedure. Steps to ensure a higher quality include:

1. organizational structure with strategic control of health-care delivery, 2. teamwork and leadership, 3. evidence-based practice, 4. continued professional development of all staff, 5. availability of health information technology, 6. profficiency, and 7. well-embedded incident reporting and disclosure systems. Only through a set of these activities the incidence of complications and errors will be on ALARP level e.g. As Low As Realistically Possible.

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PROBLEMI LAPAROSKOPSKE EDUKACIJE U HRVATSKOJ

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Početak laparoskopske kirurgije u Hrvatskoj povezan je s prvom laparoskopskom kolecistektomijoj učinjenom u svibnju 1992. Od tada, hrvatski kirurzi su odlazili na tečajeve u etablirane Europske centre za edukaciju, a 1993 započela je edukacija kroz laparoskopke tečajeve u Hrvatskoj, a kao rezultat navedenog rada laparoskopska tehnika je zastupljena u većini kirurških odjela. Unatoč naporima da se ova kirurška tehnika unaprijedi, postoji velik broj problema s kojima se Hrvatski kirurzi svakodnevno susreću i koji ih koče da prošire broj indikacija za primjenu laparoskopske kirurgije. Tako problemi laparoskopske edukacije u Hrvatskoj počinju već za vrijeme specijalizacije iz kirurgije. U ovom radu iznjeti ću mišljenja specijalizanta o dobrim i lošim stranama edukacije iz laparoskopske kirurgije. Kao vodeći problem laparoskopske edukacije najčešće se spominje dotrajalost opreme tako da ću u ovom radu iznjeti i rezultate ankete koja je bila sprovedena u Hrvatskim bolnicama a odnosi se na zastarjelost i način obnove laparoskopske opreme.

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EDUKACIJA U ENDOSKOPSKOJ KIRURGIJI

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Indikacije za endoskopsku kirurgiju kao i broj endoskopskih kirurških zahvata u stalnom su porastu.S druge strane, endoskopske operacije su tehnički zahtijevne, potrebna je sofisticirana oprema te specifične kirurške vještine. Obzirom da je usvajanje navedenih vještina neophodno kako bi endoskopska kirurgija bila i minimalno invazivna kirurgija, očita je važnost adekvatne edukacije i vježbe u endoskopskoj kirurgiji.
Edukacija u endoskopskoj kirurgiji se danas izvodi na nekoliko načina.U našoj zemlji prevladava mentorski model, kirurg-specijalizant, koji se izvodi u operacijskoj sali. Iako ovaj model zahtijeva najmanje početnih dodatnih sredstava za edukaciju specijalizanata, vrijeme u operacijskoj sali je skupo i ovakvim načinom edukacije povećan je rizik od komplikacija pri izvođenju operativnih zahvata.Prema tome, bilo bi neophodno za specijalizanta prethodno svladati osnovne endoskopske vještine kako bi se smanjilo
vrijeme provedeno u operacijskoj sali te skratila krivulja učenja.U tu svrhu do sada je razvijeno nekoliko različitih modela edukacije kao što su edukacijski zahvati na životinjama te edukacija na simulatorima za endoskopske kirurške zahvate.
Prikazati ćemo primjer edukacije u endoskopskoj kirurgiji na Kirurškoj klinici KB "Sestre milosrdnice" u Zagrebu.

ENDOSKOPSKI ZAHVATI U ABDOMINALNOJ KIRURGIJI

ENDOSCOPIC PROCEDURES IN ABDOMINAL SURGERY

1 - ABDO

QUALITY OF LIFE AFTER MINILAPAROTOMY CHOLECYSTECTOMY AND LAPAROSCOPIC CHOLECYSTECTOMY

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Background: Laparoscopic and minilaparotomy cholecystectomy has been equal methods in several studies. In our own earlier published study minilaparotomy cholecystectomy was statistically significantly shorter operation compared to laparoscopic and there was no difference in postoperative hospital stay, length of sick leave or postoperative pain between the groups. Postoperative quality of life between minilaparotomy and laparoscopic cholecystectomy is not much studied.
Patients and methods: The study was prospective and randomized. All together 157 patients with uncomplicated symptomatic gallstones, confirmed by ultrasound, were randomized into minilaparotomy (85) and laparoscopic (72) groups. Study groups were similar in age, gender, body mass index, ASA physical fitness classification and operating surgeon. Patients were re-evaluated four weeks after operation using RAND-36 quality of life questionnaire.
Results: Using RAND-36 questionnaire the study groups were similar in general health, perceptions, physical functioning, emotional well-being, social functioning, energy, bodily pain, role functioning/physical and role functioning/emotional.
Conclusion: Minilaparotomy cholecystectomy seems to be as good method as laparoscopic cholecystectomy when post operative quality of life is measured.

7 - ABDO

OUR EXPERIENCE WITH THE LAPAROSCOPIC REPAIR OF GIANT DIAPHRAGMATIC HERNIAS

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The purpose of this paper is to present our experience in the laparoscopic repair of giant paraesophageal hernias.
Out of a total of 280 patients operated for hiatal hernia, 14 of them suffered a giant parahiatal hernia. Eigth of them were women and six men. The average age was 79 years. All of them presented dysphagia, gastroesophageal reflux and five of them had suffered gastric hemorrhages. In one case, the mentioned hemorrhage was the reason of emergency admission to our hospital. Two patients presented a gastric volvulus.
Nine patients had a type III hernia and five had a type IV, that is, a complicated hernia.
Operative technique: Under general anesthesia, the patient is placed in the dorsal decubitus position, with open legs. The surgeon stands between the patient's legs, and the assistant, at the rigth of the surgeon.
After insufflating the abdomen by means of a Veress needle, five 11-millimetre trocars are inserted, as it can be sen on the video. A 30 degrees optic has been used in all procedures. Once the viscera have been placed back into the abdominal cavity, the hernial sac is resected. The diaphragmatic opening is closed with silk stitches. A Nissen funduplication is performed and the procedure is completed with a Nissen gastroplasty.
One month after de surgery, two patients had suffered a transitory disphagia. Radiological controls did not shwo slipping of the wrap or intrathoracic mmigration.
Mesh or prothesis were not used in any case.
Conclusions: We consider that the laparoscopic procedure is indicated for the repair of giant hiatal hernias.

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PARTIAL CECAL NECROSIS TREATED BY LAPAROSCOPIC PARTIAL CECAL RESECTION

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Acute colonic ischemia is the common cause of colitis in elderly population. However, isolated ischemic necrosis of cecum is rare entity, often associated with variety of conditions. Here we present a case of a 73-year old woman with a past history of hypertension presented with clinical symptoms of right lower quadrant abdominal pain and tenderness localized to the right lower quadrant, guarding and rebound tenderness. With diagnosis of acute appendicitis, the patient underwent laparoscopy where the cecal partial necrosis was discovered. Necrotic area of cecum was excised using two endoscopic staplers and laparoscopic appendectomy was performed. Pathologist report showed thrombosis of vessels and necrosis of entire cecal wall. The patient completely recovered without any surgical complications. This is the first case of partial cecum necrosis laparoscopicaly managed and with a partial cecal resection only.

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A NOVEL ALGORITHM FOR THE MINIMAL INVASIVE TREATMENT OF CHOLEDOCHOLITHIASIS:

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Background/aims: Laparoscopic cholecystectomy is the gold standard in choledocholithiasis treatment. Currently there is no generally accepted algorithm for choledocholithiasis treatment. A few years ago suspected or diagnosed choledocholithiasis was indication for open operation if bilious stones could not be removed with therapeutic endoscopic retrograde cholangiopancreatography (ERCP). Today, advancements in laparoscopic equipment and operation technique render the possibility for laparoscopic treatment of choledocholithiasis. There are many different ways in which to treat chelodocholithiasis, depending on the time of diagnosis. Due to the considerable variability in choledocholithiasis treatment, which depends in turn on many objective and subjective factors, we propose a unique diagnostic algorithm for the treatment of choledocholithiasis.
Methodology: From January 1st until December 31st 2005, at the University Department of Surgery - Split, 131 laparoscopic cholecysctectomies were performed. Thirty-three patients with suspected choledocholithiasis were treated by laparoscopic intraoperative cholangiography. After positive cholangiography, thirteen laparoscopic transcyctic extractions were performed. The patients were treated in the supine position. The surgeon was positioned between the legs of the patient, the assistants on opposite sides of the patient, and the scrub nurse on the right side of the surgeon. Transcystic stone extraction was performed using a flexible choledochoscope, which was connected to the left laparoscopic monitor using Picture-in-picture system and by Nitinol tipless Dormia basket.
Results: The total number of operated patients includes 18 women and 15 men. The mean age of patients was 60,16±15,36. The mean length of operation was 86±21,79. Mean hospitalization length of patients with laparoscopic cholecystectomy was 2,45±1,14 days; while mean hospitalization length of patients with stone extraction was slightly longer 2,90±1,18, (p=0,564).
Conclusion: Today several different possibilities approaches exist for the treatment of choledocholithiasis and it doesn't have to be treated unconditionally using endoscopic retrograde cholangiopancreatography (ERCP) and sphincterotomy before, during or after laparoscopic cholecystectomy, or by the open operation.

15 - ABDO

LAPAROSCOPIC COLORECTAL SURGERY: A SINGLE CENTER EXPERIENCE

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Introduction: Laparoscopic surgery is accepted today for the curable treatment of malignant colorectal diseases, and as a first choice of treatment for benign diseases and for palliative treatment in advanced malignant diseases.
Methods and Results: At our Department, the first laparoscopic colon resection was performed on 12 December 2002. Until 30 September 2006, we performed 119 operations, for benign and malignant diseases. Until now we performed many different procedures, like sigmoidectomy, right and left hemicolectomy, anterior resections, subtotal colectomy, total colectomy with "J -pouch", Hartman procedures, abdominoperineal resections, colostomies, and colon reconstructions after Hartman procedure. During same period we have 17 conversions. The main reason for conversion was bulky tumor or locally advanced malignant disease - infiltration of surrounding organs. We have six major complications durig the learning curve: three minor low rectal dehiscence treated conservatively, peritonitis after small bowel lesion during adhesiolysis and two left ureter injuries reconstructed in the same procedure after the conversion. We have no mortality. The cost of our laparoscopic colon resection is comparable with open colon surgery.
Conclusion: Considering our short experience during the learning curve and short follow up for the malignant dissease patients, we can conclude that our results of the laparoscopic colon resections are comparable with the results of other autors and with the results after open colon resections.

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USPOREDBA LAPAROSKOPSKE KOLECISTEKTOMIJE IZVEDENE U KLINIČKOJ BOLNICI U SPLITU I ŽUPANIJSKOJ BOLNICI U LIVNU

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Cilj: U ovoj studiji željeli smo pokazati razlike između laparoskopske kolecistektomije izvedene u Kliničkoj bolnici u Splitu i Županijskoj bolnici u Livnu.
Ispitanici i metode: U periodu od 01.01.2005. - 31.12.2005. retrospektivno su analizirani podaci 98 bolesnika operiranih u Splitu i 86 bolesnika operiranih u Livnu. Analizirali smo razlike u spolu, dobi bolesnika, duljini trajanja operacije, prosječnoj dužini ležanja u bolnici, broju korištenih troakara, količini primijenjene antibiotske i parenteralne terapije i broju poslijeoperacijskih komplikacija.
Rezultati: Postoji statistički značajno veći broj žena u odnosu na muškarce između bolesnika operiranih u Splitu, kao i onih operiranih u Livnu. Prosječna dob bolesnika operiranih u Splitu (55,16±13,97) značajno je viša u usporedbi prema dobi bolesnika operiranih u Livnu (41,66±13,40). Trajanje operacije je kraće kod bolesnika operiranih u Splitu (86±21,78), u odnosu na bolesnike operirane u Livnu (104±33,51). Kod bolesnika operiranih u Livnu korišten je manji broj troakara (3,02±0,15) u usporedbi s bolesnicima operiranim u Splitu (3,25±0,46). Prosječna duljina ležanja bolesnika operiranih u Splitu (2,45±1,13) bila je kraća u odnosu na bolesnike operirane u Livnu. Značajno manji broj bolesnika operiranih u Splitu (21,6%) je dobivao antibiotsku terapiju nakon operacijskog zahvata, u usporedbi s bolesnicima operiranim u Livnu (57%). Prosječni broj boca parenteralne terapije kod bolesnika operiranih u Splitu iznosio je 5,44±2,12, dok su bolesnici u Livnu dobivali gotovo dvostruko veću količinu parenteralne terapije; 9,34±1,65. Od ukupnog broja operiranih bolesnika u Splitu samo je dvoje bolesnika razvilo poslijeoperacijske komplikacije, dok je u Livnu poslijeoperacijske komplikacije razvio jedan bolesnik.
Zaključak: Značajno kraće trajanje operacijskog zahvata, kraća prosječna duljina ležanja u bolnici, manja količina korištenih antibiotika i parenteralne terapije bolesnika operiranih u Splitu u odnosu na bolesnike operirane u Livnu može se objasniti većem iskustvu i boljoj edukaciji operatera u Splitu, te njihovim manjim strahom od nastanka eventualnih poslijeoperacijskih komplikacija kao i bolje uhodanog kirurškog tima i većeg broja izvedenih laparoskopskih operacija u odnosu na kirurški tim u Livnu. Manji broj korištenih troakara, kao i niža prosječna dob bolesnika kod bolesnika operiranih u Livnu može se objasniti također manjim iskustvom pošto su u Livnu birani "pogodniji" bolesnici za laparoskopski zahvat.

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LAPAROSCOPIC HERNIA SURGERY IN CLINICAL HOSPITAL SPLIT

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Introduction: Laparoscopic surgery has been developed as a product of a long term researches and attemptiones to get better resaults with less complications and recurrence rates. Laparoscopic hernia repair is method which is made trough a few little holes without classic cutting of the abdominal wall. Recurrence rates of an open repair till than were 7 - 15 %, and with using this method they are lower then 1 %.
Aim: To find does a laparoscopic hernia repair has the more advantages than open repair.
Methods: In the archive of KB Split we have found documentation of the patients whose hernias were operated by laparoscopic method in the period of 23. 10. 2003. till 1. 7. 2006. From the documentation, we have collected dates about age, sex, typ of hernia, hospitalization and operation time, complications, recurrence rates and also phoned them to see which is their grade for this typ of the operation. We noted collected dates and made statistic research.
Resaults: Average age was 58,9 (SD ± 13,63) years, operation time 63,5 (SD ± 24,39) minutes and hospitalization time 2,9 (SD ± 1,2) days. Complication rate was 3,1 % and recurrence rate 0,7 % (1 ventral hernia). Patients gave to this typ of the operation a grade 4,98.
Conclusion: Considering the above, we can say that laparoscopic hernia repair has more advantages from open repair. Also, it is better and more comfortable method for patients.

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INGUINAL HERNIA REPAIR: PROSPECTIVE COMPARISON OF LAPAROSCOPIC AND OPEN TECHNIQUES

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Background: Whereas open Lichtenstein inguinal herniorrhaphy is safe, and well-understood method with a high success rate, laparoscopic techniques of inguinal hernia repair are fairly recent.
Methods: The current prospective clinical study aimed to compare results and influence on patients activity, incidence of chronic pain and cosmesis between totally extraperitoneal (TEP) procedures with those for open tension-free repair.
The study cohort comprised 79 consecutive patients who had undergone inguinal herniorraphy. Open hernia repair was performed in one group (n = 48) and TEP repair was performed in another (n=31). Then intraoperative and postoperative complications, results, postoperative recovery, pain intensity, and patients satisfaction with cosmesis were compared.
Results:The mean hospital stay was similar between two group of patients
The average operative time in the TEP group was 58.6 ± 18.1, and the average operative time in the open group 58.2 ± 17.8 The mean pain scores in the TEP group were significantly lower than the corresponding scores in the open repair group in the early postoperative period.
There was no major complication in either group.
In terms of postoperative activty, return to work we found differences. All patients (100%) in TEP group rated themselves as "highly satisfied," with cosmesis.
Conclusions: Laparoscopic extraperitoneal hernia repair seems to be as good as, if not superior to, the existing open Lichtenstein repair in terms of postoperative
pain, hospital stay, return to work, and cosmesis provided the long-term recurrence rates also are comparable.

24 - ABDO

ATELEKTAZE PLUĆA NAKON LAPAROSKOPSKE I OTVORENE HOLECISTEKTOMIJE

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Predmet ovog istraživanja su poremećaji plućne funkcije tj. atelektaze pluća nakon laparoskopske i otvorene kolecistektomije kao jedan od pokazatelja invazivnosti operativnog zahvata. U prospektivnoj studiji analizirani su RTG snimci od 76 pacijenata koji su bili operisani u periodu od 01. 01. 2006 godine do 01. 09. 2006 godine na Kirurškoj klinici u Tuzli. Pacijenti su bili podijeljeni u tri grupe. U prvoj grupi je bilo 30 kolecistektomiranih pacijenata laparoskopskom metodom, u drugoj grupi 28 kolecistektomiranih pacijenata otvorenom metodom a treću kontrolnu grupu činilo je 18 pacijenata operisanih zbog ingvinalne kile koji su odabrani iz razloga što ova operacija ne utiče bitno na postoperativni poremećaj plućne funkcije. Cilj rada je bio vidjeti postoji li statistički značajna razlika u broju postoperativnih atelektaza između pomenute tri grupe pacijenata. Rendgenski snimci pluća učinjeni su preoperativno i prvi postoperativni dan svim bolesnicima i očitani su bili od strane rendgenologa u redovnoj proceduri. U ovoj studiji utvrđeno je statistički značajno više atelektaza kod pacijenata nakon otvorene kolecistektomije u poređenju sa laparoskopskom i kontrolnom grupom. Značaj ovog istraživanja je u saznanju da je laparoskopska kolecistektomija metoda izbora u liječenju kolecistolitijaze i da je manji broj postoperativnih atelektaza samo još jedna u nizu prednosti ove metode u odnosu na klasični postupak.

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LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING (LAGB) FOR MORBID OBESITY - OUR RESULTS

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Introduction: Surgery presents the only therapeutic solution with long-term results for morbid obesity. Individuals who have a Body Mass Index (BMI) of 40 kg/m^2 and above along with patients with a BMI of >35 kg/m^2 with at least one severe comorbidity are considered to be morbidly obese and generally qualify for weight-loss surgery. Among surgical options, laparoscopic adjustable gastric banding (LAGB) represents the most commonly performed procedure. Minimally invasivity, lack of metabolic complications, complete reversibility of the procedure and the individually postoperative adjustable degree of restriction approve at the present time widely use.
The first laparoscopic adjustable gastric banding in Croatia was performed in May 2004 at Clinical Hospital "Sestre Milosrdnice".
Aim: to illustrate newly performed surgical treatment for morbid obesity and to describe our early results.
Methods: Within a period of 30 months, the adjustable gastric band was implanted in 38 morbidly obese patients (female, 25; male, 13; mean age, 43,6 years; range, 21-64 years). So called "pars flaccida" technique was used and 1 operation required conversion to laparotomy due to gastric lesion and 1 operation terminated with laparoscopy due to massive postoperative adhesions.
Results: The average duration of operation was 80 ± 10 minutes. Mean length of stay was 3.7 days (range 2-9 days). An average body weight at time of surgery was 138.4 kg (range 104-204 kg), mean body mass index (BMI) was 46.6 kg/m^2 (range 36.1-61.6 kg/m^2);
Throughout 1, 3, 6, 9, 12 and 18 months follow-up an average of 21.9; 33.3; 35.2; 39.6; 43,4 and 45,3 % of excessive weight loss (EWL) was observed. Good tolerance and low complication rate was noted.
Conculsion: Good early EWL results associated to low complications rate suggesting qualitative minimally invasive surgical procedure in morbid obesity treatment in patients with BMI < 50 kg/m^2.

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COMPLICATIONS IN LAPAROSCOPIC CHOLECYSTECTOMY

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Aim: Laparoscopic cholecystectomy is a standard method of surgical treatment of gall bladder calculi. Prevoius research showed a corelation between frequency of complications and suregon's experience.
Methods: This retrospective analysis included patients who unerwent laparoscopic cholecystectomy between 1994. - 2006. Intraoperative and postoperative complications were analysed.
Results: All together 3634 laparoscopic cholecystectomies were performed with total of 165 intraoperative and postoperative complications. There were 124 intraoperative complications (75,2%), 33 (20%) early postoperative and 8 (4,8%) late postoperative complications. Among intraoperative complications, gall bladder perforation was the commonest (n=97), then bleeding (n=22) and common bile duct lesions (n=5). Of early postoperative complications, there were wound hematomas (n=14), hepatic hematomas (n=13) and biliary peritonitis (n=6) caused by abberant bile duct (n=4) and hepatic duct lesion (n=2). All late complications reffer to postoperative hernias, 7 of them appeared at the site of 10 mm trocar application and 1 at the site of 5 mm trocar application. There were no lethal intraoperative or postoperative (early or late) complications.
Conclusion: Laparoscopic cholecystectomy is a safe surgical procedure if it is performed by a well-trained surgeons and if adequate equipment is used. The possibilty of complications is, in that case, reduced to a minimum.

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ANALIZA REZULTATA LAPAROSKOPSKIH APENDEKTOMIJA U RAZDOBLJU OD 1997. DO 2006. GODINE U OŽB NAŠICE

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Rad je prvenstveno prikaz rezultata apendektomije rađene laparoskopskom tehnikom. Prva laparoskopska apendektomija napravljena je u našoj bolnici 1995.g. Od tada do 2006. godine napravljeno je 157 laparoskopskih apendektomija. Imali smo 3 konverzije i dvije poslijeoperacijske komplikacije. Cilj rada je prikazati usporedbu i statističku obradu: vremena trajanja operacije, vrijeme ležanja u bolnici, komplikacije za vrijeme i nakon operacije, te trošak ukupnog liječenja. Kod 50 bolesnika napravljena je i statistička usporedba s otvorenom metodom te pojedine prednosti i nedostaci jedne u odnosu na drugu operaciju. Uvođenjem laparoskopske apendektomije kao metode izbora u akutnim stanjima u našoj bolnici donijelo je prednosti pred otvorenom metodom: kraću hospitalizaciju, kraću ili nikakvu poslijeoperacijsku parezu crijeva, manju poslijeoperacijsku bol te manju ili nikakvu infekciju rane. Takva metoda u našoj bolnici je prihvaćena kao pozitivna te se rutinski primjenjuje kod određenih indikacija akutnog ili kroničnog apendicitisa.

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LAPAROSCOPIC RIGHT HEMICOLECTOMY IN THE TREATMENT OF APPENDICEAL CARCINOID

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In this paper we present a case report of laparoscopic right hemicolectomy as a treatment of appendiceal carcinoid. A 43 old female patinet was presented to the hospital with signs and symptoms of acute appendicitis. An open appendectomy was peformed, and inflamed appendix with a tumefaction on it's tip was removed. Patohistological examination revealed carcinoid of the appendix, 2 by 2,5 cm in size, with a small satelitte carcinoid in the surrounding tissue. Carcinoid cells occupied whole thicknes of the appendical wall. Considering above mentioned histological carateristics a second operation was indicated. Laparoscopic right hemicolectomy was performed. It was accomplished with the use of three trocar ports. Ileotransverseal anastomosis was finished extracorporeally with the

use of a stapling device. Patological examination revealed a nodul of carcinoid tissue less than 1 cm in diameter close to the coecal wall. Postoperative period was uneventfull. The patient was urged to see the oncology specialist for the consideration of the further oncologic therapy.
Although appendectomy alone is affective for the most cases of appendical carcinoid, for some cases right hemicolectomy is indicated. We think that in those cases laparoscopic approach is safe, effective and should be a treatment of choice

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OPEN VERSUS LAPAROSCOPIC APPROACH FOR PERFORATED PEPTIC ULCERS IN GENERAL HOSPITAL SLAVONSKI BROD

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The primary goal of this presentation is to present our experiences and clarify benefits of the laparoscopic surgery.It compares laparoscopic versus open suture repair of perforated duodenal and juxtapyloric ulcers. From January 2001. to december 2005., 69 patients with a clinical diagnosis of perforated peptic ulcer were assigned to undergo either open or laparoscopic omental patch repair.
In the past two decades, there has been a change in the pattern of perforated peptic ulcer disease. Simple closure of the perforation with an omental patch and peritoneal lavage has become the favored management approach in many institutions. It is technically straightforward and reliable and is also the preferred approach for high-risk patients.Laparoscopic perforated duodenal ulcer repair is a minimally invasive technique.It has been used to treat perforated peptic ulcers since 1990. The concomitant rise in the use of laparoscopic techniques led to the first description of a laparoscopic approach in the management of a perforated peptic ulcer. The place of laparoscopic repair of perforated peptic ulcer followed by peritoneal toilet of the peritoneal cavity has been established. Since then, there has been wide acceptance of this approach.

40 - ABDO

PNEUMOTHORAX COMPLICATING ENDOSCOPIC EXTRAPERITONEAL HERNIA REPAIR

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Laparoscopic total extraperitoneal hernioplasty (TEP) is considered safe and noninvasive procedure. However, a number of cases developing pneumothorax are recorded as important complication . Surgeons and anesthesiologists should be aware of this possibility, carefully monitoring the patients which are at high risk of developing this complication. We report a 26-year-old man (85 kg) presented with left inguinal hernia, who was admitted for elective TEP. In his medical history he disclosed episodes of chronic allergic bronchitis as of age of 4 years, and house dust allergy requiring no medication. For the last 6 years he smokes 20 cigarettes daily. Tracheal intubation was performed easily and was atraumatic. The induction of anaesthesia was uneventful. At the onset of surgery, O2 saturation (saO2) was 95%, blood pressure was 115/70 mmHg, and end-tidal carbon dioxide (etCO2) was 4,5 kPa. TEP repair of the hernia was routinely started with three trocars, the preperitoneal working space was maintained at a pressure of 13 mmHg.The patient was hemodinamically stable throughout, but after 50 minutes, right after the final positioning and stapling of the polypropylene mesh, the anaesthesiologist noted subcutaneous emphysema in the neck region, and signs of right pneumothorax. The event was accompanied with tachicardia (100b/min), raise in blood pressure up to 145/70 mmHg, saO2 fell to from 95% to 90%, and etCO2 increased from 4,5 to 10 kPa. A chest tube was inserted immediately, improving the patient's oxygenation to normal value. The hernioplasty was completed 10 minutes after the episode. The extubation was uneventful, spontaneous respiration normal. Chest X-rays performed in the intensive-care unit were normal, and the chest tube was removed after 48 hours. Two days later the patient was dismissed, and up to now, there is a 10-month uneventful follow-up period.The possible routes for gas entering the thoracic cavity are pleuroperitoneal hiatus, aoround the esophageal and aortic hiatus, congenital diaphragmatic defect, or damaged falciform ligament. Causes unrelated to the laparoscopic technique are barotraumas, injury to the trachea during intubation, or spontaneous rupture of a congenital bulla. In presented case,

it is unlikely that any of these factors contributed to the development of pneumothorax.Suspected etiology in this case can be speculated in potential channel between the peritoneal cavity and the pleural sac or gas entering the retroperitoneal space and migrating along tissue planes into pleural space and subcutis.

41 - ABDO

ULTRASOUND GUIDED PERCUTANEOUS TREATMENT OF PERIAPPENDICEAL ABSCESSES FORMED DURING ACUTE APPENDICITIS AND AFTER APPENDECTOMY

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Background. The traditional treatment of an abscess collection formed after perforation of appendix during acute appendicitis includes early appendectomy with debridment of the abscess cavity or the treatment with broad-spectrum intravenous antibiotics followed by elective interval appendectomy after 4-6 weeks. The purpose of this study is to analyze the results of percutaneous drainage under ultrasound guidance in the treatment of acute perforated appendicitis and abscesses formed as complications after appendectomy.
Methods. 42 patients (19 women and 23 men, average age 29.8±5.9) with abscess collection after perforation of appendix due to acute appendicitis or abscesses after appendectomy were treated with percutaneous drainage. All patients were treated with broad spectrum intravenous antibiotics. The abscess collection was punctured using a 5-French or 8-French catheter and the content was aspirated and broad spectrum antibiotics and antiseptics instilled. The catheter was kept in the abscess cavity until drainage stopped.
Results. The mean (±SD) hospital stay was 6,2±5,2 days. Microbiologic examination of abscess collection was positive in all patients. 35 patients (83.3%) had fever over 37,5 C and 17 of them had high fiver(over 38C). One patient, shortly after intervention was surgically treated due to carcinoid. Fourteen patients were surgically treated after about 4 months because of recurrent abscess collections. 27 patients were asymptomatic after procedure and ultrasound controls after one, three and six months and one and two years, showed no evidence of abscess. There were no complications in relation with procedure.
Conclusions. Ultrasound guided percutaneous drainage, combined with antibiotic and antiseptic therapy, is an effective and safe method for treatment of abscess collections formed during acute appendicitis and after appendectomy. Only a few patients needed elective surgical treatment, while the majority did not need any further intervention after successful percutaneous drainage.
Keywords: Abscess collection, Acute appendicitis, Interventional ultrasound

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LAPAROSCOPIC CHOLECYSTECTOMY IN THE TREATMENT OF ACUTE BILLIARY PANCREATITIS (ABP)

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Aims: Billiary stones are the main cause of acute pancreatitis (AP). Development of laparoscopic surgery enables use of this approach in the treatment of patients with AP. The results of laparoscopic management of those patients, with ABP are present.
Methods: This prospective study included 82 patients with ABP treated with laparoscopic approach in 2002-2005 period. All patients after admission were treated conservatively and ERCP with endoscopic sphincterectomy (ES) were done if cholangitis and/or obstructive jaundice were present. In patients with mild ABP, laparoscopic cholecystectomy (LC) with intraoperative choleangiography (IC) were performed within 10 days of admission while in patients with severe ABP this procedure was done 4-6 weeks after the admission. If the common bile duct stones (CBD) were found on IC patients, they received ERCP with ES after the surgery. In cases where clearance of CBD failed open surgery were performed.
Results: There were 62 (76%) patients with mild and 20 (24%) with severe ABP. ERCP with WS with clearance of CBD were done in 6 patients with severe and in 2 with mild ABP before LC. During the LC in 76 (93%) patients IC were done while the remaining 5 patents due to narrow cystic duct failed. In 6 of 76 (8%) IC showed CBD stones.

In those 6 patents after he operation ERCP with ES and clearance of CBD where done, but in 2 was unsuccessful. They additionally receive open surgery with CBD clearance. Mortality and morbidity rate were 1.2% (one patient died), 8% respectively.
Conclusion: Result of this study suggests that LC with IC could be used safely in both form of ABP and followed with endoscopic procedure in selective cases could be a definitive treatment for those patients. IC as less invasive procedure could replace routinely preoperative ERCP in patients suffered for ABP without the symptoms of cholangitis and obstructive jaundice. Laparoscopic approach in severe forms needs further investigations until it becomes the standard of treatment.

44 - ABDO

LAPAROSCOPY IN DIAGNOSTIC OF BLUNT ABDOMINAL TRAUMA

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Aims: Trauma is the leading cause of death in young population. Blunt abdominal injuries are still cause of death in average of 60% of all deaths due to trauma. In these cases, just one reliable diagnostic method has to be chosen to prove the injury. As these patients almost always are in shock and sometimes required simultaneous surgery, laparoscopy is reliable and safe method for evaluation of abdominal injury.
Methoda: We examined the group of 10 severe injured patient (ISS>18) during 2003-2005, with blunt abdominal trauma. In all patients diagnostic peritoneal lavage (DPL), abdominal ultrasound (US) and computerized tomography (CT) ere done. Since the diagnosis of intraabdominal bleeding was suspected, but was not confirmed using the diagnostic procedures, we decided to perform diagnostic laparoscopy. Pneumoperitoneum with intraabdominal pressure less than 12mmHg with CO2 was created.
Results: During diagnostic laparoscopy intraabdominal bleeding was confirmed in 92 patients. In 12 (7%) patients the result of DPL, US and CT were crossed-false. The leading injured organ was spleen (46%), liver (21%), hollow visceral (8%), retroperitoneal haemathoma (25%) and 4-6% of patients ha more than one injured abdominal organ-five cases og diaphragmatic injury. 20-40% required laparotomy. There were significant les postoperative complications in this group, compared with control one.
Conclusions: For the severe injured patients, with controlled hypotension, laparoscopy is a very promising diagnostic method as minimal invasive, very quick, especially in the cases of hollow viscera or diaphragmatic injuries. It isn't still a diagnostic and therapeutic standard in blunt abdominal injury but in future will be.

48 - ABDO

LAPAROSKOPSKA PERITONIZACIJA ZDJELIŠTA NAKON ABDOMINO-PERINEALNE AMPUTACIJE REKTUMA

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Cilj: Peritonizacija zdjelišta je važna za prevenciju poslijeoperacijskih adhezija i elevacija terminalnih vijuga ileuma, za izbjegavanje iradijacije istih kod bolesnika kod kojih je potrebna adjuvantna iradijacijska terapija.
Metode: Nakon laparoskopske ekstirpacije rekto-sigmoidnog dijela debelog crijeva izvodi se peritonizacija zdjelišta produžnim resorptivnim intrakorporealnim švom peritoneuma, uz aplikaciju metalnog klipa nakon svakog drugog šva. Metalni klip ima zadaću fiksiranja produžnog šva, te na nativnoj RTG snimci zdjelišta osnovu za označavanje poslijeoperacijskog iradijacijskog polja, čime se izbjegavaja značajno postiradijacijski enteritis.
Rezultati: U retrospektivnoj analizi u razdoblju od 12. prosinca 2002. do 30. rujna 2006. laparoskopskom metodom operirano je 119 bolesnika zbog bolesti debelog crijeva, od čega je kod 5 bolesnika (4.1%) učinjana abdomino-perinealna amputacija rektuma (LAPA). Bilo je operirano 2muškarca i 3 žene, prosječne dobi 72 godine (60-80). PHD nalaz kod dvoje bolesnika klasificiran je kao Dukes B i a kod troje kao C stadij. Poslijeoperacijskih komplikacija nije bilo. Peroralna ishrana započeta je 24 sata nakon operacijskog zahvata, te je provedena antibiotska i tromboprofilaksa. Prosječna hospitalizacija bila je 9 dana (8-11). Kod nijednog bolesnika nije bila potreba za transfuzijom krvi i radila se samo perinealna aspiracijska drenaža.
Zaključak: Laparoskopska peritonizacija zdjelišta nakon LAPA je jednostavan postupak, a od izuzetnog kliničkog

značaja ui prevenciji adhezija i postiradijacijskog enteritisa. LAPA je postupak koji zadovoljava sve osobitosti minimalno invazivne kirurgije i prihvatljiv je kod svakog bolesnika kod kojeg je indicirana amputacija rektuma.

49 - ABDO

LAPAROSCOPIC SURGERY FOR TREATMENT OF RECTAL TUMORS

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Introduction: Laparoscopic surgery has proved to be a reproducible and safe technique for the treatment of rectal cancer. It can be used following the same oncological criteria as open surgery. It obtains the same rate of survival after 5 years, local recurrences and sphincter preservation.
Aim: to review the immediate clinical outcome of laparoscopic resection of tumors located below 15 cm of the anal margin.
Methods: We reviewed the outcome of first 4 patients operated at Dubrava University Hospital, Department of abdominal surgery between September 2003 and September 2006. We analyzed short-term outcomes: type of procedure, operative time, postoperative mortality and morbidity, hospital stay, pathological features.
Results: The patients were 3 males and 1 female with a mean age of 60.3 (45-73); ASA grades I-III. According to the TNM classification there was one patient operated in the first stage, 2 patients in the second stage and 1 patient in the third stage.
Operation included 3 low anterior resections sec. Dixon and 1 abdominoperineal resections sec. Miles. There was no conversion to open surgery in either procedure. The overall perioperative mortality rate was nil. There were no postoperative complications. The mean operative time was 190 min while mean blood loss was 195 cc. In all specimens, negative margin were revealed histopathologically. The average number of lymph nodes retrieved was 14. Mean postoperative hospital stay was 10.2 days.
Conclusion: Laparoscopy is a safe technique that equals or even surpasses open surgery in several respects and that is increasingly used by teams of experts.

50 - ABDO

LAPAROSKOPIJA U AKUTNOM NETRAUMATSKOM ABDOMENU

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Cilj: Značajke urgentne laparoskopije kao dijagnostičkog i terapijskog postupka kod pacijenata s akutnim netraumatskim abdomenom.
Metode: U razdoblju od 2003. do 2005. godine na Kirurškoj klinici KB Split urađena je retrospektivna klinička analiza 164 bolesnika, koji su laparoskopski tretirani sa kliničkom slikom akutnog netraumatskog abdomena. Promatrana je skupina bolesnika s akutnim netraumatskim abdomenom kod kojih nije bilo mogućih kontraindikacija za izvođenje pneumoperitoneuma i laparoskopske eksploracije i liječenja.
Rezultati: U navedenom razdoblju laparoskopski su operirani bolesnici sa manifestnom kliničkom slikom akutnog abdomena unutar 10 sati od hitnog kirurškog prijema zbog slijedećih razloga: akutni kolecistitis (53 bolesnika), akutni apendicitis (81 bolesnik), perforirani duodenalni vrijed (21 bolesnik), strano tijelo u ileocekalnoj regiji (1 bolesnik), ishemijska nekroza dna cekuma (1 bolesnik), jatrogena lezija rektosigmoidnog dijela pri kolonoskopiji (2 bolesnika), hematopelveoperitoneum zbog rupture ovarijalne ciste (4 bolesnika) i masivna hematokezija kod intraktabilnog ulceroznog kolitisa (1 bolesnik). Konverzija je urađena kod 14 bolesnika (9%), a značajnije poslijeoperacijske komplikacije su zamijećene kod 8 bolesnika (4.5%). Prosječna hospitalizacija 4 dana (raspon 3-24 dana). Nije bilo poslijeoperacijskog mortaliteta.
Zaključak: Značenje urgentne laparoskopije nije samo kao dijagnostičkog postupka kod bolesnika s kliničkom slikom akutnog abdomena, nego i kao primarnog izbora liječenja. Urgentna se laparoskopija, nažalost, ne koristi dovoljno na kirurškim radilištima diljem svijeta, pa tako ni kod nas, iz subjektivnih i organizacijskih razloga.

52 - ABDO

LAPAROSCOPIC SURGERY FOR COLORECTAL CANCER

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Introduction: Surgical resection is the primary treatment for colon cancer. The introduction and acceptance of laparoscopic colectomy for cancer has been gradual for a number of reasons including the fact that it is technically challenging, has less than dramatic patient benefits, and perhaps most significantly it could theoretically represent a compromise as an oncologic procedure. Evidence suggests that laparoscopic colectomy for colon cancer is safe, feasible, and an oncologic adequate resection can be performed with acceptable operative times and conversion rates. Recently published results from the largest and first prospective randomized trial with sufficient statistical power have shown that laparoscopic colectomy is as effective as open colectomy in preventing recurrence and death from colon cancer. In experienced hands, laparoscopic colectomy for the cure of colorectal cancer appears to be equivalent to open surgery and may become standard in selected patients.
Methods and results: The first laparoscopic colon resection was performed at our Department on July 2nd 2003. Until September 31st 2006 we performed 14 operations. The patients were 10 males and 4 females with a mean age 67 (43-75); ASA grades I-III. According to the Dukes classification there was one patient operated in Dukes A, 8 patients in Dukes B and 3 patients in Dukes C. Different procedures, like sigmoidectomy, right and left hemicolectomy, anterior resections of rectum and abdominoperineal resections were performed. The mean operative time was 215 minutes. During the same period we have one conversion because of left urether lesion. The overall perioperative mortality rate was nil. There were no postoperative complications and reoperations. In all specimens, negative margin were revealed histopathologically. The average number of lymph nodes retrieved was 15. Mean postoperative hospital stay was 10.3 days.
Conclusion: Laparoscopic colorectal surgery represents a safe and feasible method with more convenient postoperative course for the patients, satisfactory oncological outcomes and promising long-term effects.

54 - ABDO

LAPAROSCOPIC REPAIR OF SIGMOID COLON PERFORATION ASSOCIATED WITH COLONOSCOPY - CASE REPORT AND REVIEW OF THE LITERATURE

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Introduction: Sigmoid colon perforation is rare and has been estimated to occur between 0.01 and 0.03% of the time. Treatment of colonic injury has progressed since the recognition of the value of colostomy or bowel exteriorization. The treatment guidelines take into consideration the time interval between perforation and treatment as well as the nature, the site, and the cause of perforation.
Case report: We reported a 80 years old patient who sustained a colonic perforation during therapeutic colonoscopy. Laparoscopy was performed 5 hours after colonoscopy. Two 12-mm (infraumbilical and right medioclavicular line beneath umbilicus) and one 5-mm (left medioclavicular line in umbilical level) trocars were inserted in the abdomen under general anesthesia. When we induced Veress needle intraabdominal pressure was 4 mmHg due to gases from perforated bowel. Fecal matter was not identified in the peritoneal cavity. Local peritonitis was mild. The laceration on the front side of sigmoid colon (size 2x1 cm) was oversewn with three sutures using the endocorporeal knot technique. The omentum was then anchored over the lesion. The postoperative recovery was rapid and uneventful, fourth day after the surgery patient was discharge from hospital with normal bowel function.
Conclusion: Laparoscopic surgery may become a useful tool for the safe, effective, and minimally invasive management of iatrogenic colonic perforation. Advantages of the minimally invasive approach include the ability to evaluate the entire colon for injuries, more rapid postoperative recovery, and improved cosmetic.

55 - ABDO

LAPAROSCOPIC GASTRIC BANDING: TREATMENT OF CHOICE FOR MORBID OBESITY

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Introduction: Clinically severe obesity and/or morbid obesity are recognized as major public health risks throughout the world. In the Croatia alone, over 60 000 people suffer from this chronic disease. Much of the associated morbidity and mortality is related to co-morbid conditions which include, but are not limited to, cardiac disease, type II diabetes mellitus, obstructive sleep apnoea, [Pickwick syndrome], hypertension, dyslipidemia, gastroesophageal reflux disease, stress urinary incontinence, arthritis of the weight bearing joints, infertility. Surgical treatment of morbid obesity (bariatric surgery) has been well established as being safe and effective.
Aim: to present clinical result of laparoscopic bariatric surgery and its advantages.
Methods and results: Fourth patients (one male and three female) were operated laparoscopically using Swedish Adjustable Gastric Band (SAGB). Body mass index (BMI) between 40-47. All patients underwent multidisciplinary evaluation (psychiatrist, endocrinologist) before surgery. There were no intraoperative complications. Postoperative follow up was between one and eight months. In one patient band slipped one month after surgery due to patient non compliance and the band was removed. Weight loss 6 months after surgery was between 20 and 30 kg (15-20%).
Conclusion: laparoscopic bariatric surgery is feasible and effective treatment option for morbid obesity. Patient cooperation with food restriction is mandatory and non compliance may cause surgical failure.

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LAPAROSCOPIC CYSTOGASTROSTOMY IN THE TREATMENT OF PANCREATIC PSEUDOCYSTS

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Aim: Pancreatic pseudocyst is one of the most common complications of acute pancreatitis. Symptomatic or complicated pseudocysts require treatment. The basic principle of pseudocyst treatment is its drainage. The best method is internal drainage by establishing communication between pseudocyst and stomach or small intestine. In recent years, several methods of laparoscopic internal drainage of pancreatic pseudocysts have been reported. Here we present our first three cases of laparoscopic internal drainage of pancreatic pseudocyst.
Methods and results: Three patients, two males and one female were operated due to symptomatic pseudocysts after acute necrotic biliary pancreatitis. All patients were operated laparoscopically and cystogastrostomy with cholecystectomy was performed simultaneously. There were no postoperative complications. These three patients were followed up for 3 months, 6 months and one year, respectively and no recurrences were observed.
Conclusion: Laparoscopic internal drainage of pancreatic pseudocysts is feasible with all advantages of minimally invasive surgery.

59 - ABDO

INDICATION AND BENEFITS IN TRANSANAL ENDOSCOPIC MICROSURGERY - TEM

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Aim: Aim of this study is to show extent in indication in transanal endoscopic microsurgery (TEM), benefits and therapeutic advantages in this specific procedure and our expirience and result in TEM to you our experience about education, therapeutic advantage of transanal endoscopic microsurgery (TEM). We should expose except our result and our short video presentation with few cases who treated with this technology.
Methods: This is retrospective study of all cases in three years experience with new endoscopical metod for rectal tumor and other benign lesion in this location.

Results: We operated 42 patient with malignant and benign lesion. There was 3 T1 tumors with low grade for lymphe node metastasis, 3 with Tis lesion, and the other were benign lesion. Averige of operative time was about 2,3 hours. Averige of postoperative stay was 3,4 day. We had 4 conversion. Consuption of analgetic was less than open operation. We did not have major postoperative complications. One case died becouse of cardiac death.
Conclusion: We conclude TEM is the best choice for benign, displastic leasion and early rectal cancer. This procedure provide more benefits for patients, hospital and insurence sistem.

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SIX YEARS EXPERIENCE USING THE SEMIRIGID TELESCOPIC CHOLEDOCHOFIBERSCOPE FOR THE LAPAROSCOPIC COMMON BILE DUCT EXPLORATION

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Background: The treatment of cholelithiasis and common bile duct (CBD) stones in the same session is the most appropriate therapy for patients. This method is mostly described as a complicated procedure reserved for specialized centers. Our aim is to show that the dedicated instruments are crucial factors for the transformation of this method from exclusive to a routine one.
Methods: From January 1993 to August 2006, 346 laparoscopic CBD explorations (LCBDE) were performed. Since June 1998 in 48 cases LCBDE was performed with the fiberscope CHF-10 (Olympus, Japan). From June to October 1999, in 63 cases the CHF-CB20 was used. In the first group of 111 patients the choledochotomy approach and the T-tube were used. Since 1999 in the second group of 235 cases (158 transcystic, 77 choledochotomy) the CHF-CB30S was used, which with the Rigid Telescopic Introducer (Olympus Winter& Ibe, Germany) was transformed to the Semirigid Telescopic Choledochofiberscope (SRT-CHF). We analyzed the CBD clearance, complication, mortality, total operative time and the time needed for exploration (ET) from the moment when choledochoscope was introduced into the CBD to the end of the control cholangioscopy.
Results: For the first group the total operative time ranged from 180 to 400 minutes (mean 210), the ET was 50 - 130 minutes (mean 85). There were 3 conversions (2.7%) and one retained stone (99% CBD clearance). In the second group the total operative time for the transcystic approach ranged from 40 - 120 minutes (mean 75) and from 80 - 180 (mean 95) for the choledochotomy, the ET was from 5 - 36 minutes (mean 15) for the transcystic approach, and from 15 - 45 minutes (mean 20) for the choledochotomy. In the second group the CBD clearance was 100%. In neither of the groups there was not procedure related complications nor perioperative mortality.
Conclusions: SRT-CHF is the first dedicated cholangioscope. Therefore the intraoperative cholangiography can be mainly replaced. The use of dedicated instruments enables substantially simplified choledocholithiasis treatment with manifold operative time reduction. Using SRT-CHF it is possible to perform LCBDE routinely even in the small community hospitals.

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LAPAROSCOPY FOR TREATING INFLAMMATORY OMPHALOMESENTERIC DUCT

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The anomalies related to omphalomesenteric duct remnan constitute an uncommon cause of intestinal obstruction, of which Meckel¨s diverticulum and its variants represent the most important clinical presentation. In most cases they are asymptomatic and usually affect young patients. When symptomatic, they usually present episodes of gastrointestinal bleeding or acute abdomen syndromes caused by strangulation of intestinal loops as a result of fibrous intraabdominal remnants or inflammation produced by the diverticulum. In most cases, the unexpected presence of these alterations makes intraoperative diagnosis necessary. Treatment is surgical and consists in exeresis of the diverticulum or the fibrous band causing clinical picture. A 17-year-old female presented with 24-hour history of lower abdominal pain and emesis. A diagnostic laparoscopy was performed. The duct was resected using an endovascular GIA stapler. The patient was discharged on postoperative day 3, tolerating a regular diet. Laparoscopy is a useful diagnostic and therapeutic tool for a patient with an unclear etiology.

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KONVERZIJE I KOMPLIKACIJE LAPAROSKOPSKIH KOLECISTEKOMIJA

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Od 15.12.1994 do 31.12.2005.godine na Kirurškom odjelu OB Zabok ukupno je učinjeno 3289 kolecistektomija,od čega smo 2301 (70%) započeli laparoskopskom,a 988 (30%) otvorenom metodom.
Cilj ove analize nam je bio utvrditi razloge konverzijama ,utvrditi komplikacije kod naših bolesnika te navedene rezultate usporediti s drugim autorima.
Od ukupnog broja laparoskopski započetih kolecistektomija 2216(96,3%) završili smo i laparoskopski,dok smo kod 85 bolesnika(3,7%) morali učiniti konverziju u otvorenu metodu.
Najčešći razlozi konverzijama laparoskopske u otvorenu kolecistektomiju bili su nejasni anamtomski odnosi u Calotovom trokutu (60 bolesnika),a znatno rijeđe intraabdominalne adhezije(8),intraabdominalno krvarenje(7),empijem i gangrena žučnjaka(6),anesteziološki razlozi(3) te lezija d. hepatikokoledokusa kod jednog bolesnika.
Od ranih postoperativnih komplikacija kod 16 bolesnika se javila pojačana žučna sekrecija(aberantni i akcesorni žučni vodovi te ispale klipse s d. cistikusa),kod 6 bolesnika jače kravrenje iz jetrene lože te kod 4 bolesnika krvarenje iz trbušne stijenke.Imali smo jedan letalni ishod zbog plućne embolije.
Od kasnih komplikacija zabilježili smo zaostale konkremente u koledokusu kod 3 bolesnika,stenozu koledokusa kod 3 bolesnika,4 postincizijske hernije te infekcije supraumbilikalne incizije kod 22 bolesnika.
Naši rezultati komparabilni su s rezultatima koje iznose drugi autori,ali trebamo i dalje težiti smanjenju komplikacija na najmanju moguću mjeru što ćemo postići temeljitom preoperativnom obradom,minucioznom kirurškom tehnikom i ,u slučaju potrebe, pravovremenom konverzijom laparoskopske u otvorenu kolecistektomiju.

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LAPAROSCOPIC ILEOCOECAL RESECTION IN CROHN'S DISEASE

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Aim: Patients with Crohn's disease are highly motivated to undergo an operation that provides them fast recovery and minimal scaring. Paper presents our experince with laparoscopic-assisted ileocoecal resections.
Methods: In 2005 and 2006 nine patients underwent laparoscopic-assisted ileocolectomy for Crohn's disease at our department. Six of them were on therapy with corticosteroids. One patient was operated for Crohn's disease complicated with perytyphlitic abscess. Laparoscopic-assisted ileocoecal resection was done in 7 cases and laparoscopic assisted segmental resection of terminal ileum was done in two cases. Laparoscopic part of operation was done with three ports and open part of operation was done through McBurney incision (usually done in appendectomy).
Results: Postoperative course was uneventful in all patients. Histopathologic specimens were 30-75 cm long. Patients were discarged home 4-7 days after operation. Till now we saw no reccurence of the disease.
Conclusion: Laparoscopic technique offers faster recovery and cosmetic advantages over open procedure.

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LAPAROSCOPIC SURGICAL PROCEDURES ON THE BOWEL AFFECTED BY ENDOMETRIOSIS

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Introduction: Adequate treatment of severe deep pelvic endometriosis requires complete excision of all implants. The authors describe their experiences with laparoscopic management of deep pelvic endometriosis with bowel involvement.

Methods: A retrospective analysis of patients with deep pelvic endometriosis, presented to the Department of Obstetrics and Gynecology between January 2001 and September 2006, was made. The series consisted of 124 patients (median age 34 years), 33 of them had bowel involvement. Preoperative symptoms included dysmenorrhea (85,7%), dyspareunia (64,3%), chronic pelvic pain (53,5%) and infertility (28,6%).
Results: The bowel disease was managed laparoscopically by excision of the anterior rectal wall (n=5), anterior rectal resection (n=25), sigmoid colon resection (n=2), cecal resection (n=2), ileocolic resection (n=1), and small bowel resection (n=2). The laparoscopic procedure was converted to formal laparotomy in two cases, where placing of the endoscopic stapler proved impossible due to increased thickness of the bowel wall and in one case due to incomplete anastomosis. Postoperative complications included 2 cases of anastomotic leak which required temporary ileostomy, intraabdominal bleeding in one case and rectovaginal fistula. In the latter case, laparotomy and additional resection of the bowel was performed.
Conclusion: In our opinion, the laparoscopic treatment of pelvic endometriosis with bowel involvement is safe, when performed by surgeon or gynecologist with sufficient experience in partial and segmental bowel resection, and the ability to convert to laparotomy when necessary.

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LAPAROSCOPIC APPENDECTOMY IN 1000 PATIENTS

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The aim of this study was to evaluate the safety of laparoscopy for acute appendicitis and appendicular peritonitis.
Methods: This retrospective study included 1000 cases of acute appendicitis in time period from 22 March 1994 till 31 October 2006. Mean age was 26 years (from 4 to 82).
Results: We performed 501 (50.1 %) laparoscopic appendectomies for phlegmonous appendicitis and 315 (31,5 %) for gangrenous appendicitis with local peritonitis. In 58 (5,8 %) cases there was diffuse purulent peritonitis and perforated gangrenous appendicitis. In 65 (6.5 %) cases there was interval appendicitis and laparoscopic appendectomy for appendicular mass. Incidental appendectomy was in 61 (6.1 %) cases. Mean hospitalisation was 3,2 days (1-8). Overall intraoperative morbidity rate was 11 (1.1 %), bleeding in 10 patients and small bowel perforation was in 1. Postoperative complications was in 51 patiens (5.1 %), wound infections in 26 patients (2.6 %) , intraabdominal abscess in 7 patients (0.7 %) and bowel obstruction in 3 patients. Paralitic ileus was in 10 (1 %) patients, respiratory infections in 4 patients and one fistula of the cecum. Conversion rate was 1.3 % (13) because of local anatomy problems (8) or bleeding (5).There was no death.
Conclusion: Laparoscopy for acute appendicitis and appendicular peritonitis is safe and effective without any specific complication.

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POVREDE LUSCHKA-INIH VODOVA KOD LAPAROSKOPSKE HOLECISTEKTOMIJE

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Injury of accessory bile ducts(Luschka) as reason of bile leakage and possible forming bile collection in abdominal cavity are already described.
In article we present our experience based on large number of laparoscopic cholecystectomy performed.
We bring retrospective analysis after 4148 laparoscopic cholecystectomy.
Of that number we classified 21 cases as injury of accessory bile ducts. 15 cases of bile leakage had spontaneous resolution. In 6 cases we made reoperation(relaparoscopy in 4 cases and laparotomy in 2 cases.
When injury of accessory bile ducts is not identified during the operation, drainage subhepatal area gives deciding help in recognition of this lesions.
Most bile leakages(in case of injury of accessory bile ducts) had spontaneous resolution ; early performed relaparoscopy solves this complication in high percentage.

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LAPAROSKOPSKA APENDEKTOMIJA U RIZIČNIH PACIJENATA

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Iako je od prve laparoskopske apendektomije prošlo 24 godine postoje još uvijek stanovite kontroverze oko te metode te ona nije postala "zlatni standard" kao što je to laparoskopska kolecistektomija.
Vjerojatno je jedan od razloga to što se kolelitijaza operira uglavnom u fazi kada ne postoji upalna komponenta, a drugi je svakako to što je laparoskopska apendektomija operacija koja se uglavnom radi u hitnoj službi te ju izvode razni profili kirurga koji su različito educirani i skloni laparoskopskom načinu operiranja.
Metodu smo počeli primjenjivati 2001.god. i od tada smo učinili 171 laparoskopsku apendektomiju. Istovremeno smo učinili i 494 klasične apendektomije.
Ovakav brojčani odnos laparoskopske i klasične apendektomije odraz je prihvaćenosti metode i u našem kirurškom kolektivu, a dijelom i povremenih tehničkih problema(nedostatka pribora).
Razvijajući metodu uvidjeli smo njezine prednosti za tzv. rizične pacijente te smo u ovom radu nastojali dokazati zbog čega je laparoskopska apendektomija po našem mišljenju bolja od klasične posebno za neke grupe bolesnika.
Analizirali smo sve apendektomirane pacijente unatrag tri godine.
U rizičnu grupu izdvojili smo pacijente koji su opterećeni debljinom(body mass index preko 26, dijabetičare, preboljeli infarkt ili angina pektoris, kronična opstruktivna plućna bolest, hipertoničare te pacijente na imunosupresivnoj terapiji.
U grupi koja je laparoskopski operirana bilo je 28 rizičnih pacijenata, a u grupi koja je klasično operirana 71.
Analizirali smo duljinu operativnog zahvata, broj i vrstu postoperativnih komplikacija, davanje antibiotika i dužinu zadržavanja u bolnici.
Analizirali smo i postotak tzv. kompliciranih apendicitisa u obje grupe pacijenata jer mislimo da je laparoskopsku apendektomiju moguće uspješno izvoditi i kod gangrenozno promijenjenih crvuljaka kao i kod onih koji su perforirani sa različito teškim popratnim peritonitisom.
Rizični pacijenti operirani laparoskopski krače su boravili u bolnici, imali su manji broj postoperativnih komplikacija ranih i kasnih, operativni zahvat trajao je u prosjeku deset minuta duže te su jednako dobivali antibiotika kao i oni koji su operirani klasično.
Analiza je potvrdila naše opažanje da je laparoskopska apendektomija preporučljiva baš za tzv. rizične pacijente i opravdava uloženi trud u učenje metode.

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KOMPLIKACIJE LAPAROSKOPSKE KOLOREKTALNE KIRURGIJE U KBC-U RIJEKA

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Komplikacijama je bremenit svaki vid kirurgije pa tako i endoskopska - laparoskopska kirurgija.
U laparoskopskoj kolorektalnoj kirurgiji su primarne komplikacije:
- krvarenje u trbušnu šupljinu
- ozljeda drugog organa (intra/extra peritonealno)
- popuštanje spoja crijeva
- obstrukcija tankog crijeva
- infekcija rane
- intrabadominalni absces
- neadekvatna reakcija na anesteziološki postupak
- oboljenje organa drugog sustava

Autori analiziraju komplikacije i uzroke konverzije laparoskoskih operacijskih zahvata u kolorektalnoj kirurgiji u 62 bolesnika operiranih ovom kirurškom tehnikom u razdoblju 2003.- 2006.g.
U analizu su uključeni bolesnici podvrgnuti zahvatima zbog tumorske bolesti kolona i rektuma.
U 8 (13 %) operiranih bolesnika uočene su komplikacije (popuštanje šavne -staplerske linije,povreda drugog

organa,ileus,krvarenje u rani ,sek. infekcija rane, te respiratorna insuficijencija) dok je u 12 bolesnika sveukupno produžen febrilitet. Komplikacije se analiziraju i kroz parametre dobi bolesnika,razvijenosti mlg bolesti,položaja tumora, njegovih makroskopskih dimenzija, te učinjenog zahvata.
Konverzije u klasičan operativni zahvat, u 8 (13 %) operiranih bolesnika, posljedicom su nalaza uznapredovale bolesti, intra op. komplikacije, priraslica, nemogućnosti vizualizacije vitalnih struktura i ostalog.
Ova nam iskustva nameću pravila rada u laparoskopskoj kolorektalnoj kirurgiji, kako bi se potencijalni broj prvenstveno komplikacija, a time i dijelom konverzija sveo na što manju moguću mjeru.

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KOMPLIKACIJE LAPAROSKOPSKE APENDEKTOMIJE - ISKUSTVA U KBC RIJEKA

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Do današnjeg dana je u KBC Rijeka učinjeno 260 laparoskopskih apendektomija.Od toga 224 apendektomija učinjeno u hitnosti, a 36 u elektivnom programu zbog kroničnog apendicitisa. Glede dijagnoza, a uzimajući u obzir samo hitne zahvate, akutnih apendisitisa je bilo191 (85,3%), 15 limfadenitisa (6,7%) i 12 tuboovarijalnih apscesa(5,4%). U dva navrata se radilo o Crohnovoj bolersti (0.9%), u jednom slučaju o karcinoidu crvuljka (0,45%). Kod 3 bolesnice se radilo o krvarenju iz Corpus luteum-a (1,3%)
Od ukupnog broja laparoskopskih apendektomija konvertirali smo u klasični zahvat 7 bolesnika što iznosi 2,7%
Od komplikacija smo imali 3 abscesa (1,2%) Doulasovog prostora od kojih su 2 riješena konzervativno antibioticima, a jedan operacijski rezom po Pfannenstielu. Gnojenje umbilikalne icizije u 8 (3,2%) bolesnika. Kod jednog (0,4%) bolesnika je četvrtog p.o.dana došlo do otpadanja endo-loopa s bataljka te je revidiran klasičnim pristupom. Poslijeoperacijsko krvarenje s mjesta radnog troakara kod jednog bolesnika(0,4%).Hemostaza je učinjena laparoskopski. Od velikih komplikacija navodimo jednu leziju aorte troakarom (0,4%). Lezija je prepoznata na stolu, a krvatrenje je zaustavljeno suturama na aorti po učinjenoj medijanoj laparotomiji.
U našoj ustanovi su liječena i dva bolesnika operirana u drugim ustanovama i to jedan kod kojega je nastala cekokutana sterkoralna fistula 15 dana po op zahvatu (učinjena je klasična revizija i drenaža), a drugi zbog krvi u maloj zdjelici (riješen konzervativno). Kod 8 bolesnika je bila prisutna pojačana bolnost, ali bez objektivnog nalaza te je hospitalizacija produžena . Ranog poslijeoperacijskog mortaliteta nije bilo.
Komplikacije nalazimo u 22 bolesnika (8,7%).
Bolesnici su bili hospitalizirani od 1 do 10 dana. Prosječno vrijeme hospitalizacije je bilo3,3 dana.
U zaključku možemo reći da je laparoskopska apendektomija prihvatljiva kirurška metoda liječenja. Uzimajući u obzir komplikacije (osim lezije aorte) vidljivo je da ne utječu bitno na konačan rezultat. Rani poslijeoperacijski morbiditet kao i dužina trajanja hospitalizacije su prihvatljivi. Bitno se ranije mogu vratiti na obavljanje svakodnevnih poslova.
Na žalost moramo konstatirati da se kod laparoskopske operacije može dogoditi lezija većih krvnih žila koja se inače ne opsuje kod klasične apendektomije s posljedicama koje mogu biti izuzetno teške.

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LAPAROSKOPSKE RESEKCIJE DEBELOG CRIJEVA U KBC RIJEKA

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Uvod: Minimalna invazivna tehnika u kolorektalnoj kirurgiji izvodi se danas široko u mnogim centrima u svijetu. Ta se metoda primjenjuje i u benignim i u malignim bolestima debelog crijeva. Izgleda da je laparoskopska resekcija kolona udružena sa manjim morbiditetom i ranijim oporavkom nego što se to događa kod otvorene metode operiranja. Međutim, mora se naglasiti da je laparoskopska tehnika operiranja daleko zahtjevnija i zato je potrebno značajnije dulje vrijeme učenja da bi se savladala.
Metode: Podaci su skupljeni prospektivno i uključuju demografske podatke, dijagnoze, vrijeme operacije, postotak konverzija, komplikacije, patohistološke nalaze i duljinu boravka u bolnici.
Rezultati: Prosječna dob bolesnika iznosila je 67,1 godinu s tim da je najmlađi imao 43 godine, a najstariji 85 godina.

Bilo je ukupno 62 bolesnika od toga 40 (65%) muškaraca i 22 (35%) žene. Prednja resekcija rektuma izvršena je u 18 (29%) bolesnika, a niska prednja resekcija rektuma u 4 (6,5%). Resekcija sigme učinjena je u 25 (40,5%) bolesnika, a subtotalna kolektomija u 1, lijeva hemikolektomija kod 1, a desna hemikolektomija kod 5 (8%) bolesnika. Izvršene su 3 Hartmann-ove operacije i 5 rekonstrukcija kolona.
Kod 10 bolesnika operacije su vođene kao palijativne, jer su već u pripremi za operaciju nađene metastaze u jetri. U 8 (13%) bolesnika uočene su postoperativne komplikacije. Operacija je morala biti konvertirana u otvorenu u 8 (13%) slučajeva. Postoperativni boravak u bolnici iznosio je prosječno 8,9 dana.
Zaključak: Laparoskopska resekcija debelog crijeva je sigurna i etablirana procedura iako je tehnički zahtjevna i zato je potrebno dulje vrijeme da se u cijelosti savlada. Rezultati su komparabilni onima kod otvorenog klasičnog operiranja. Potencijalne koristi od laparoskopske resekcije kolona ogledaju se u bezbolnijem postoperacijskom tijeku i bržem oporavku. Konverzija u otvorenu metodu može se učiniti u svakom trenutku i samo govori o iskustvu i dobroj procjeni operatera.

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ENDOSKOPSKE KOLECISTEKTOMIJE U ŽUPANIJSKOJ BOLNICI ČAKOVEC 1995.-2005.

ČULINOVIĆ-ČAIĆ R, Sklepić D, Magaš Z, Ozretić P, Pavlović E, Krištofić D, Trojko S, Žvorc M, Fundak F, Komarčić M, Grudić R, Starčević D, Škoda A, Novinščak T, Kozjak G, Škvorc N
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Cilj rada bio je analizirati podatke bolesnika kojima je učinjena endoskopska kolecistektomija od početka primjene metode u našoj ustanovi, usporediti omjer endoskopskih i klasičnih kolecistektomija, operacijski nalaz s patohistološkim nalazom i analizirati komplikacije i razloge za konverziju.
Podaci su dobiveni iz povijesti bolesti bolesnika, operacijskih protokola, temperaturnih lista i patohistoloških nalaza i analizirani metodom deskriptivne statistike.
U 11-godišnjem razdoblju (1995.-2005.) je u našoj ustanovi učinjeno ukupno 2213 kolecistektomija, od kojih je 217 učinjeno klasičnom metodom. Laparoskopskom metodom je operacija započeta u 1996 bolesnika, od kojih se u 76 moralo pristupiti konverziji i zahvat završitit laparotomijom. Laparoskopskom metodom je operacija završena u 1922 bolesnika. Prosječna životna dob operiranih bila je 51,41 godine. Dvije najmlađe operirane pacijentice su imale 13, a najstariji 83 godine (1 bolesnik i 2 bolesnice).
Nekomplicirana kolelitijaza nađena je u 1583 bolesnika. Akutna upala žučnjaka nađena je u 264 bolesnika, od kojih je 26 imalo gangrenoznu upalu. Kalkuloza žučnjaka nije nađena u 19 bolesnika, od kojih je 8 imalo akutnu upalu, 2 empijem žučnjaka i 9 bolesnika miran žučnjak.
Među svim operiranim bolesnicima hidrops žučnjaka nađen je u 13, a empijem u 56 bolesnika. Promjene u smislu perikolecistitisa nađene su u 48 bolesnika.
Konverzija je učinjena u 76 bolesnika, najčešće zbog nejasnih anatomskih odnosa uzrokovanih priraslicama i/ili jakim upalnim promjenama. Zbog razvoja komplikacija je reoperirano 13 bolesnika, od kojih je laparotomija rađena u 11, a laparoskopski su reoperirana 2 bolesnika.
Letalni ishod nakon endoskopske kolecistektomije nismo imali.
Zaključno, endoskopska kolecistektomija je suverena i sigurna metoda koja je danas u potpunosti zamijenila klasičnu kolecistektomiju, tako da zadnjih 5 godina bilježimo kontinuirani pad broja klasičnih kolecistektomija. Zahvaljujući uvježbanosti kirurga i stečenom iskustvu, danas sve više uspijevamo endoskopski zbrinuti i akutno upalno promijenjene žučnjake u kasnijim fazama upale, s malim brojem komplikacija (0,65% svih endoskopski operiranih bolesnika).

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RAZLOZI ZA KONVERZIJU I KOMPLIKACIJE NAKON ENDOSKOPSKE KOLECISTEKTOMIJE U ŽB ČAKOVEC 1995. - 2005.

ČULINOVIĆ-ČAIĆ R, Sklepić D, Magaš Z, Ozretić P, Pavlović E, Krištofić D, Trojko S, Žvorc M, Fundak F, Komarčić M, Grudić R, Starčević D, Škoda A, Novinščak T, Kozjak G, Škvorc N
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Cilj rada bio je utvrditi razloge za konverziju kod endoskopske kolecistektomije i analizirati komplikacije nakon te operacije u našoj ustanovi.
Od ukupno 1996 bolesnika kojima je u razdoblju od 01.01.1995. do 31.12.2005.g. kolecistektomija započeta laparoskopskom metodom, konverziji i završetku operacijskog zahvata klasičnim putem pristupilo se u 76 (3,8%) bolesnika (46 žena i 30 muškaraca). Prosječna životna dob bolesnika kojima je učinjena konverzija i završetak operacije klasičnom metodom bila je 61,27 godina (najmlađa bolesnica 28, a najstarija 83 godine).
Među bolesnicima kod kojih se pristupilo konverziji, u 27 (35,5%) je nađena akutna upala žučnjaka, od kojih je gangrenoznu upalu imalo 15 (19,7%) bolesnika. Subakutno promijenjen žučnjak imalo je 7 (9,2%) bolesnika. Empijem žučnjaka nađen je u 24 (31,5%), a perikolecistitis u 17 (22,4%) bolesnika.
Najčešći razlog za konverziju bila je nemogućnost adekvatnog prikaza važnih struktura uzrokovana priraslicama i/ili jakim upalnim promjenama i procjena operatera da se zahvat ne bi mogao sigurno završiti endoskopskom metodom.
Među 76 bolesnika kod kojih se pristupilo konverziji, 3 bolesnika (3,9%) su bila reoperirana zbog razvoja komplikacija u postoperacijskom tijeku.
Među 1922 bolesnika kojima je operacija učinjena laparoskopskom metodom, komplikacije smo imali u samo 13 (0,67%) bolesnika. Najčešće komplikacije bile su jatrogena lezija ekstrahepatalnih žučnih puteva (4 bolesnika), krvarenje iz jetrene lože (3 bolesnika) i krvarenje na mjestu uboda troakara (2 bolesnika). U 11 bolesnika komplikacija je zbrinuta laparotomijom i u 2 bolesnika ponovnom laparoskopijom. Letalni ishod nismo imali.
Zaključno, u našem uzorku se pristupilo konverzij pri endoskopskoj kolecistektomiji u 3,8% bolesnika, a komplikacije smo imali u 0,67% svih endoskopski operiranih bolesnika. Najčešći razlog za konverziju je nemogućnost adekvatnog prikaza struktura Callotova trokuta uzrokovana priraslicama i/ili jakim upalnim promjenama i subjektivna procjena operatera da se zahvat ne bi mogao sigurno završiti endoskopskom metodom.

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LAPAROSCOPIC BARIATRIC SURGERY IN KC LJUBLJANA

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Aim: Bariatric surgery for adolescents is intended to approach the disease in an early stage and avoid the appearance or improve the status of the associated comorbidities. Our goal is to report our early experience with laparoscopic bariatric surgery in adult population.
Methods: Betwen 6/04 and 6/06 ten adolescents underwent laparoscopic bariatric surgery; 8 of them laparoscopic adjustable gastric banding (LAGB), and two Roux-en-y bastric bypass.
Nine were women and only one man, the average age was 33 years and average BMI was 53.
One patient had diabetes mellitus, two arterial hypertension and two of them had sy Prader Willi. The average hospitalization after surgery was 5 days.
Results: No major complications or mortality was observed.
Conclusions: Laparoscopi bariatric surgery is an effective procedure in terms of weight loss; it is a safe operation with no mortality in our series.

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LAPAROSCOPIC SIGMOIDECTOMY FOR DIVERTICULITIS - RESULTS COMPARED TO OPEN SURGERY

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Aim: Diverticular disease is a common condition with high morbidity and mortality related to its complications. In the course of the last decade the feasibility of laparoscopic sigmoidectomy for diverticular disease has been well established. But so far the exact advantages of laparoscopic compared to open surgery are still in discussion.
Methods: We have reviewed our prospectively collected patients database from January 2003 until now and have compared the intraoperative data and postoperative outcomes of patients who underwent laparoscopic sigmoidectomy for diverticulitis with a historical comparison group also treated in our department.
Results: Laparoscopic surgery has been carried out in 16 cases, open surgery in 19 cases. Both groups were similar with regard to age and gender. Overal, in the group operated laparoscopically the operative time was longer (min) 139 vs. 98, morbidity was lower (%) 12.1 vs. 24.3, lethality was also lower (%) 0 vs. 0.2 and the lenght of stay in hospital was shorter (days) 5 vs. 9 days.
Conclusion: The laparoscopic sigmoidectomy is a safe operation technique, it seems to have advantages compared to open surgery. However for a definite rating randomised studies analysis the long-term outcome are required.

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LAPAROSCOPIC EXTIRPATION OF THE RETROPERITONEAL CYSTIC TUMOR USING LIGASURE-CASE REPORT

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We will present a 22 years old female who had last half year stitching pain in the left lumbar region. On ultrasound examination they have found 10x6 cm large cystic tumor in the region of the distal part of the left kidney. On computer tomography examination they have shown 7x7 cm large cystic tumor in the same region. Laparoscopicaly we have found retroperitonealy in the region of the lower part of the left kidney a big cystic tumor which we removed using LigaSure device. Posoperative course was uneventful and the patient left the hospital on second postoperative day.
The patohistological examination revealed the mucinous cystadenoma with borderline malignancy

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VIDEOLAPAROSCOPIC APPENDECTOMY BECOME THE GOLD STANDARD FOR APPENDICEAL PATHOLOGY IN MY HOSPITAL

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Background: Laparoscopic techniques have amasing impact in modern surgery, but the superiority of laparoscopic approach for appendectomy is still debated. We analyzed our experience with complications in 1000 laparoscopic appendectomies.
Methods: We devided patients in two groups of patients. In first period from 22 March 1994 till 31 December 2001 we performed 500 laparoscopic appendectomies, and the second period was with next 500 cases.
Results: In first group (FG) intraoperative morbidity rate was 2 % (10), and in second group (SG) was 0,2 % (1). Overall postoperative morbidity rate in FG was 9.6 % (57), but in SG was 2.2 % (11) Wound infections in FG was in 26 patients (5.2 %), in SG 2 (0.4 %). Intraabdominal abscess in FG was in 5 patients (1 %) and in SG was the same. Bowel obstruction in FG was in 2 cases (0.4 %), in SG just 1 (0.2 %). Paralitic ileus in FG was in 10 patients (2 %), in SG 2 patients (0.4).There was 4 patients with respiratory infections in FG (0.8 %), but in SG none.We had 1 patient with fistula of the cecum in SG. Conversion rate was 2.4 % (12) in FG because of bleeding

or local anatomy problems, but in SG conversion rate was 0.2 % (1). There was no death in both groups.
Conclusion: Laparoscopic appendectomy offers many advantages and can become the gold standard for appendiceal patology. No randomized trials or metaanalyses have definitively proved its superiority.

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LAPAROSCOPIC BILATERAL HERNIA REPAIR USING FIBRIN SEALENT AND MECHANICAL STAPLING FOR MESH FIXATION AT THE SAME PATIENT - CASE REPORT

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Case report, video presentation : Minimally invasive surgery is widely used in hernia repair given its advantages such as minimal disturbance to the surrounding tissues, shorter hospital stay, and promising long-term results. We present two cases of bilateral inguinal hernia repair performed with a totally extraperitoneal procedure using fibrin sealant and staples, for the fixation of the mesh, at the same patient.

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LAPAROSCOPIC SPLENECTOMY- INITIAL EXPERIENCE IN DUBRAVA UNIVERSITY HOSPITAL

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The spleen is one of the most common solid organs operated by laparoscopic techniques. Laparoscopic splenectomy is one of the most challenging procedure because of the bulk and vascularity of the spleen and wide range of pathological conditions that affect it.
The aim of this paper is to report our initial experience with all problems during operation on small number of patient who underwenth laparoscopic menagement due to different splenic pathology.
Patients and methods: During the last 3 years (2003-2006) we performed 11 laparoscopic splenectomies for various splenic pathologies (5 patients with Non Hodgkin Lymphoma, 3 with cyst and 3 with ITP). There were 7 females and 4 males with median age 44.8 yrs (18-75).
We employed 3 (in 7 cases) and 4 (in 3 cases) trocars technique with right semilateral position.
Results: All operations were completed without conversion. Mean splenic size were 18,6-10.7-5 cm, with the biggest spleen measured at 27-15-5 cm. Splenic vessel were tied in using a vascular Endo- GIA (8 cases), clips (2 case) and "Ligasure" sealing system (1 case). The spleen was freed, inserted into endobag and removed. During the operation our biggest problem was inadequate endobag for extraction of spleen. Mean operative time was 150 min; and mean length of hospital stay was 8.1 day. All patient are discharged from hospital without any morbidity.
Conclusion: Based on our initial experience, laparoscopic splenectomy is safe and feasible and presents a golden standard for patients with selected benign and malignant splenic pathology.

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NISSEN FUNDOPLICATION

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Treatment of gastroesophageal reflux disease (GERD) evolves with the introductions of new drug therapies and advancements in surgical techniques. Initial unbridled enthusiasm for each new therapy has been tempered by clinical studies and experience that identify deficiencies. 1,2 The appropriateness and benefit of each new therapy are determined only after time and close scrutiny. It has taken twelve years after the first report of laparoscopic antireflux surgery 3 to clarify the use and results of laparoscopy in the treatment of GERD. Although laparoscopic

antireflux represents an option in therapy for GERD, it is not universally applicable and definitely not a panacea.4
In an attempt to reduce anastomotic leakage complicating proximal gastrectomy for gastric cardia cancers, Rudolph Nissen wrapped the esophagogastric anastomosis in a sleeve of stomach. This reduced leaks as well as symptomatic gastroesophageal reflux. His experience over nearly 20 years with this technique led to the development of the "Nissen fundoplication" for the management of gastroesophageal reflux. In 1955, he treated a 49 year-old female with symptomatic reflux and no hiatal hernia with his fundoplication.5 The initial procedure bears little resemblance to the operation performed today.6,7 The fundoplication enveloped the lower esophagus and was created by suturing the anterior to the posterior fundal folds anterior to the esophagus. At least one suture incorporated the esophageal wall, within which a large bougie was placed. The initial operation included an anterior gastropexy and division of the lesser omentum in the area of the hiatus. There was no reconstruction of the esophageal hiatus and no division of the short gastric vessels. The fundoplication was longer than constructed today.
Evolution of this operative procedure is due to recognition that fundoplication is only a component of this repair. The principles of "Nissen fundoplication" are restoration of the intra-abdominal length of esophagus, reconstruction of the esophageal hiatus and the construction of a loose, floppy 3600 fundoplication. This requires mobilization of the intrathoracic esophagus, complete dissection and reconstruction of the hiatus and division of short gastric vessels and creation of a loose, floopy 3600 fundoplication.
A Nissen fundoplication produces an antireflux barrier that is physiologicaaly superior to partial fundoplications. In some surgeon's experience (mine included) Nissen fundoplication is clinically superior to partial fundoplication. There has been a movement to tailor antireflux surgery based on esophageal motility, thus choosing a partial fundoplication for patients with esophageal dysmotility. There is ample evidence that Nissen fundoplication can be used in all but those patients with aperistalsis or severely impaired peristalsis, regardless of amplitude.8-12 However, Nissen fundoplication is associated with dysphagia and postprandial symptoms, which must be minimized by careful patient selection and correct surgical technique.13-15 It is important that every patient be made aware of the potential problems that may result from the creation of an iatrogenic gastric volvulous, before he commits to surgery.
Key to successful surgical treatment of GERD is meticulous patient evaluation and careful patient selection. The ideal patient has typical symptoms of GERD (reflux, regergitation and dysphagia) with relief of acid reflux with proton pump inhibitors.16,17 Esential evaluation includes barium esophagram18, esophagogastroduodenoscopy and biopsy19, esophageal motility studies20 and 24-hour pH monitoring21.

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KOMPLIKACIJE LAPAROSKOPSKE OZLJEDE EKSTRAHEPATALNIH ŽUČNIH PUTEVA KAO RIJETKA INDIKACIJA ZA TRANSPLANTACIJU JETRE

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Uvod: Ozljede ekstrahepatalnih žučnih puteva pri laparoskopskoj kolecistektomiji predstavljaju ozbiljnu komplikaciju zahvata, a ishod im je često neizvjestan. Jedna od mogućih posljedica je razvoj kroničnog kolangitisa i sekundarne bilijarne ciroze, kao najteže komplikacije koja može biti uzrokom terminalne jetrene bolesti - indikacije za transplantaciju jetre.
Bolesnici i metode: Iznosimo naša iskustva s dva bolesnika liječena ortotopičnom transplantacijom jetre (OLT) s kadaveričnog donora piggy-back tehnikom kod kojih je indikaciju predstavljala sekundarna bilijarna ciroza kao komplikacija laparoskopske kolecistektomije učinjene u drugim ustanovama.
Rezultati: Kod prve bolesnice dobi 40g. došlo je do opstrukcijskog ikterusa kao posljedice lezije duktusa koledokusa pri laparoskopskoj kolecistektomiji. Tri tjedna nakon operacije učinjena je hepatiko-jejunoanastomoza s vijugom izoliranom po Rouxu. Bolesnica u nastavku pati od učestalih kolangitisa i nakon godinu dana dijagnosticirana je sekundarna bilijarna ciroza, a četiri godine po kolecistektomiji i terminalna bolest jetre te je učinjena OLT s dobrim ishodom. Kod druge bolesnice dobi 58g. je mjesec dana nakon laparoskopske kolecistektomije dijagnosticirana bilijarna fistula s nekrozom dijela duktusa hepatikusa i duktusa koledokusa te je također učinjena hepatiko-jejunoanastomoza s vijugom izoliranom po Rouxu. I ovdje se godinu dana po operaciji uz kronični kolangitis razvija sekundarna bilijarna ciroza. Učinjena je OLT, a bolesnica je 2.5g nakon transplantacije dobro. Treći bolesnik dobi 49g., sa zatajenjem jetre uzrokovanim ozljedom d. koledokusa pri laparoskopskoj kolecistektomiji još je na listi čekanja za transplantaciju. I on je primarno (intraoperacijski) zbrinut hepatiko-jejunoanastomozom s vijugom izoliranom po Rouxu, no unatoč tome razvili su se recidivirajući koangitisi i sekundarna bilijarna ciroza.

Zaključak: Premda se ozljede bilijarnog sustava nastale pri laparoskopskoj kolecistektomiji danas najčešće uspješno liječe, kod dijela ovih bolesnika moguć je razvoj komplikacija u smislu kroničnog kolangitisa i ireverzibilnog oštećenja jetre kao indikacije za transplantaciju. Kako bi se osigurao optimalan uspjeh kod ovih složenih ozljeda, potrebno je bolesnike što ranije uputiti u specijalizirane centre za hepato-bilijarnu kirurgiju.

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REKTOVAGINALNA FISTULA- LAPAROSKOPSKI PRISTUP

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Rektovaginalna fistula je razmjerno rijetka bolest. Uzrokovana je porođajnim ili operacijskim ozlijedama, upalnim bolestima crijeva (Crohnova bolest), neoplazmama ili postradijacijskim promjenama. Prema veličini fistuloznog otvora klasificira se u tri stupnja, a prema lokalizaciju u niske i visoke. Obzirom na prirodu i simptomatologiju, bolest osim somatski znatno i psihički traumatizira bolesnice te je liječenje fistule uvjek indicirano. Niske se fistule mogu riješavati transrektalno ili transvaginalno. Visoke fistule zahtjevaju transabdominalni pristup. Abdominalne operacije rektovaginalne fistule često pretstavljaju izazov za kirurga obzirom na adhezije i promjenjene anatomske odnose u zdjelici uzrokovane prethodnim zahvatima, upalnim promjenama ili zračenjem. Upravo iz tih razloga se laparoskopski pristup rijetko primjenjuje. U literaturi su opisana svega dva slučaja laparoskopske operacije rektovaginalne fistule. Prezentirati ćemo laparoskopsku operaciju visoke rektovaginalne fistule kod 63 godine stare bolesnice koja je prethodno histerektomirana i zračena zbog malignoma uterusa. Fistula lokalizirana između rektumu na 8 cm od AK granice i forniksa vagine je uspješno prikazana i incidirana laparoskopski, a fistulozni otvori na rektumu i vagini šivani kombinirano laparoskopski i transrektalno, osnosno transvaginalno.

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KARCINOM ŽUČNJAKA SLUČAJNO OTKRIVEN KOD LAPAROSKOPSKE KOLECISTEKTOMIJE: NAŠI REZULTATI

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Uvod: Karcinom žučnjaka je najčešći tumor bilijarnog stabla i obilježen je vrlo lošom prognozom. Porast broja kolecistektomija koji se može zahvaliti sve raširenijoj praksi izvođenja laparoskopske kolecistektomije doveo je i do njegove češće slučajne dijagnoze. U ovom radu iznosimo naša iskustva kod bolesnika s karcinomom žučnjaka koji je otkriven tijekom ili nakon laparoskopske kolecistektomije.
Bolesnici i metode: Od siječnja 1996. do listopada 2006. u našoj ustanovi učinjeno je 3127 laparoskopskih kolecistektomija. U tom razdoblju kod 13 bolesnika (0,42%) je intraoperacijski ili postoperacijski otkriven karcinom žučnjaka. Retrospektivno smo analizirali demografske i kliničke značajke tih bolesnika.
Rezultati: Liječeno je 9 žena i 4 muškarca, dobi od 34 do 85 godina (srednja 67.7g.). Dijagnoza je intraoperacijski postavljena kod 7 bolesnika, dok je kod ostalih postavljena patohistološkom pretragom. Histološki je 1 bolesnik imao tumor ograničen na sluznicu (T1), 3 bolesnika subserozni tumor (T2), kod 4 bolesnika je tumor infiltrirao serozu (T3) dok je kod 5 bolesnika infiltrirao i okolni jetreni parenhim (T4). Troje bolesnika je kod operacije imalo vidljive metastatske promjene u jetri. Kod dvoje bolesnika učinjena je konverzija u klasični zahvat s ekscizijom lože žučnjaka, dok je kod jednog učinjena odgođena resekcija jetre (svi T3 stadij). Ostali bolesnici su po kolecistektomiji podvrgnuti samo onkološkoj terapiji. Od deset bolesnika za koje postoji odgovarajuće praćenje, umrlo je osam dok ih je dvoje živo. Preživjeli bolesnici su imali bolest stadija T1 i T3 pri čemu je bolesnik sa stadijem T3 jedini bolesnik koji je podvrgnut reoperaciji u smislu radikalnog zahvata. Trajanje preživljenja za 10 praćenih bolesnika je od 6-45 mjeseci (srednje 19,5 mjeseci).
Zaključak: Karcinom žučnjaka slučajno otkriven kod laparoskopske kolecistektomije kod većine naših bolesnika već je bio u uznapredovaloj fazi i rijetko je bilo moguće radikalno kirurško liječenje. Kod tumora ograničenih na sluznicu dovoljna je laparoskopska kolecistektomija dok je kod tumora koji dublje infiltriraju stijenku indicirana klinasta resekcija lože žučnjaka, odnosno resekcija jetre s limfadenektomijom. Unatoč adekvatnoj kirurškoj i onkološkoj terapiji, prognoza za ove bolesnike je vrlo loša.

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ODNOS CIJENA,ŠTEDNJE I ODGOVORNOSTI U LAPAROSKOPSKOJ KIRURGIJI

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Od samog početka razvoja laparoskopske kirurgije u hrvatskim bolnicama, nizom predavanja, stručnih i znanstvenih radova ukazuje se na prednosti nove metode. Nedvojbeno je dokazano i da su ukupni troškovi liječenja novom metodom manji od troškova liječenja otvorenom metodom, prije svega zbog bržeg oporavka i kraćeg bolovanja. Mjerenje bolničkih troškova liječenja pokazuje da cijene koje je HZZO odredio za ove zahvate ne pokrivaju stvarne troškove bolničkog liječenja. Stoga su uvedena pravila štednje u bolnicama kako bi se i u takvim uvjetima omogućio dalji razvoj laparoskopske kirurgije.
Cilj ovoga rada je prikazati znanstvenu metodu mjerenja troškova u kirurgiji. Tom metodom izračunati su troškovi bolničkog liječenja laparoskopskom kolecistektomijom, laparoskopskom apendektomijomi laparoskopskom suturom perforiranog ulkusa.
Rezultati ovoga rada pokazuju da cijene HZZO-e nisu dovoljne za pokrivanje troškova bolničkog liječenja navedenim laparoskopskim operacijama. Na materijalu matične ustanove autora prikazane su metode štednje kojima se postiže uklapanje u važeće cijene HZZO-e.
U zaključku rada nabrojene su glavne točke u kojima postoji povezanost između nerealnih cijena laparoskopskih operacija, mjera štednje u laparoskopskoj kirurgiji uvjetovanih takvim cijenama i odgovornosti bolnice i kirurga za rezultate liječenja i komplikacije.

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LAPARASKOPSKO ZBRINJAVANJE CHOLECYSTODUODENALNE FISTULE; CASE REPORT

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Laparoscopic management of biliary-enteric fistulas is described in literature,no matter is it about preoperative or intraoperative diagnosis.
Intraoperative diagnosis is very common reason to conversion laparoscopic cholecystectomy.
We show case of intraoperative diagnosed cholecystoduodenal fistulae which is managed laparoscopicly.
We assume that biliary-enteric fistulas can manage in laparoscopic way.

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LAPAROSKOPSKA FUNDUPLIKACIJA ZBOG GERBA

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Gastroesofagealni refluks je često stanje koje se povremeno javlja u 40% odraslog stanovništva, a kod 10% svakodnevno. Prva linija liječenja je medikamentozni tretman, a ukoliko dođe do zatajivanja takvog liječenja indiciran je kirurški zahvat. Prvu gastričnu funduplikaciju u svrhu liječenja refluksne bolesti je izveo i opisao Nissen 1955. godine, a 1991. godine Geagea i Dallemagne su Nissenovu tehniku primijenili laparoskopskim putem. Zbog svoje minimalne invazivnosti, poslijeoperacijskog komfora i brže rehabilitacije, laparoskopska funduplikacija je ubrzo prihvaćena kao metoda izbora u kirurškom liječenju GERBa. Prve laparoskopske funduplikacije su u Hrvatskoj učinjene tijekom 2001. godine. Danas se smatra da su indikacije za kirurški zahvat neučinkovitost konzervativne terapije ili komplikacije koje se javljaju unatoč konzervativnoj terapiji. Prijeoperacijska manometrija donjeg esofagealnog sfinktera (DES) i 24-satna pH metrija su odlučujuće dijagnostičke pretrage, a čini se da imaju i značajnu prognostičku vrijednost. Što je izloženost distalnog jednjaka kiselom sadržaju duža i tonus DES niži veća je vjerojatnost zatajivanja konzervativne terapije. Većina kirurga danas koristi potpunu funduplikaciju od 3600 kao metodu izbora, dok su semifunduplikacije po Toupetu ili Doru rezervirane za bolesnike sa izraženim dismotilitetom

jednjaka. Laparoskopske antirefluksne operacije nemaju ništa više komplikacija nego otvorene operacije. Najčešće su krvarenja, ozlijede (perforacija) jednjaka ili želuca, pneumotoraks, emfizem medijastinuma i ozlijede stražnjeg n. vagusa, a poslijeoperacijski prolazna disfagija.
Antirefluksne operacije su logičan nastavak liječenja bolesnika kod kojih se medikamentozni tretman pokazao nedovoljan ili potpuno neučinkovit. Takve operacije ako se tehnički korektno izvedu, dovode do nestanka ili smanjenja tegoba u gotovo svih operiranih.

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PERKUTANA EMBOLIZACIJA VENE PORTE

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Cilj: Intervencijski radiološki postupci čine bitnu odrednicu u planiranju kirurškog liječenja malignih bolesti hepatobilijarnog trakta. Cilj ovih zahvata koji se u načelu izvode perkutanim pristupom, bilo kateterizacijom krvnih žila (transarterijskim ili transvenoznim putem) ili perkutanim pristupom bilijarnom traktu, jest poboljšanje općeg stanja bolesnika što je slučaj kod rješavanja opstrukcijskog ikterusa i posljedičnog infekta nekim od oblika perkutane bilijarne drenaže te smanjenje ili potpuno dokidanje vaskularizacije tumora kako bi se isti smanjio i omogućila resektabilnost glede odnosa sa susjednim vitalnim anatomskim strukturama.
Metode: Perkutana embolizacija vene porte (PVE) temelji se na dva ključna elementa: smanjenju prokrvljenosti dijela jetre unutar kojeg se nalazi primarni ili sekundarni tumor koji treba resecirati te hipertrofiji budućeg ostatnog dijela jetre ("future liver remnant", FLR) čime se povećava izgled preživljenja bolesnika podvrgnutog radikalnom kirurškom zahvatu. PVE se izvodi pod kontrolom rentgena, u lokalnoj i/ili potenciranoj endovenoznoj analgeziji, transkateterskom superselektivnom primjenom različitih vrsta embolizacijskih materijala. Indikacija za PVE postavlja se temeljem volumetrijske analize jetre višeslojnim CT-om (MSCT). Povoljan ishod resekcije u slučaju nepostojanja difuzne parenhimske bolesti jetre podrazumijeva da bolesniku preostane nakon operativnog zahvata barem 25% jetrenog parenhima, odnosno u slučaju postojanja ciroze barem 40% od procijenjenog ukupnog volumena jetre. Primjenom PVE moguće je postići hipertrofiju FLR unutar 2-4 tjedna čime se povećava mogućnost preživljenja kirurškog zahvata.
Rezultati: Prikazan je slučaj bolesnika sa solitarnom metastazom GIST-a unutar desnog režnja jetre, u kojega je radikalna desna hepatektomija uslijedila nakon prethodne selektivne intraarterijske kemoembolizacije i perkutane embolizacije desne grane vene porte.
Zaključak: Adjuvantna primjena PVE u pomno odabranih bolesnika omogućuje primjenu radikalnog kirurškog liječenja u bolesnika s uznapredovalim ili nepovoljno smještenim malignim tumorima hepatobilijarnog trakta. Pažljivo izvedena PVE povećava vjerojatnost preživljenja bolesnika podvrgnutih složenim kirurškim zahvatima u području jetre.

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Prva laparoskopska laparotomija u Djelatnosti Opće kirurgije Opće bolnice Bjelovar je učinjena u travnju 1997. godine. Početni entuzijazam razvoja laparoskopske kirurgije širio je i lepezu novih operacija. Apendicitis kao akutno stanje zahtjevao je izučenost kirurga kao i cijelog op. tima. Stoga su se u početku laparoskopske apendektomije (LA) radile s dosta vremenskih razmaka između njih. Početna tehnika LA sastojala se od postavljanja klipsi na arteriju apendikularis, njenog oštrog presijecanja te postavljanja endoomče na crvuljak koji se također oštro između njih presijecao. Tako se operiralo sve do 2005. godine kada je kupljen ultrazvučni nož kojim sada presijecamo mezenteriolum i arteriju apenikularis. I dalje upotrebljavamo endoomču za presijecanje crvuljka. Ukupno je operiralno 67 LA u rasponu od 11 do 67 godina. U zadnjih 3-4 godine sve više indikacija za LA postavlja se kod djece. Usvajanjem dobre tehnike operiranja vrijeme hospitalizacije se izrazito smanjilo te sada iznosi 2 do 3 dana. U početku bio je veći broj komplikacija u smislu manjeg intra op.krvarenja, pericekalnih manjih apscesa koji su se

liječili konzervativno, te apsces cavum Douglasi koii se liječio laparoskopski ispiranjem fiziološkom otopinom te odgovarajučom drenažom. U zadnjih nekoliko godina broj komplikacija je izrazito malen te ih gotovco i nema. Treba istaknuti da uz adekvatnu tehniku operirianja izrazito je važno dobro ispiranje trbušne šupljine fiziološkom otopinom. Praktično nema kontraindikacije za LA i kod perforiranog crvuljka bilo uz lokalni ili difuzni peritonitis. Svakako je to metoda izbora naročito kod djece jer smanjuje dane bolničkog liječenja, omogućuje ranu ishranu na usta, brži oporavak, te izrazito mali broj infekcija incizija na trbušnoj stijenci.

182 - ABDO

TEP KAO METODA IZBORA KOD RECIDIVNIH I OBOSTRANIH PREPONSKIH KILA

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Operacija preponskih kila su se iz temelja promijenile primjenom tehnike operiraanja bez napetosti tkiva. Toi je omogućila primjena mrežica. U Djelatnosti Opće kirurgije Opće bolnice Bjelovar prva "tension free" operacija je urađena u studenom 1996., i to i operacija po Licthensteinu i TEP gotovo istog dana. Postupno su "tension free" operacije prihvatili i ostale kolege kirurzi jer je bila uočljiva manja postop.bol, kraća hospitalizacija, brže vraćanje normalnim životnim aktivnostima. Ipak je većina kirurga primijenila otvorenu tehniku operiranja po Lichtensteinu a samo jedan kirurg vrši operacije TEP-a. Iz dijagrama je jasno vidljivo da je već nakon 2 godine po primjeni nove tehnike operiranja došlo do napuštanja "stare" tehnike uz napetost tkiva. Iznimno se uradi operacija po Basiniju kod mlađih adolescenata. TEP nije prihvaćen od većeg broja kolega kirurga jer zahtjava dobru tehniku laparoskopskog operiranja tako da i dalje općenito manji broj kirurga primjenjuje tu tehniku. Svakako da prednost ima endoskopska hernioplastika ali zbog subjektivnih , ali i objektivnih okolnosti nije šire prihvaćena. O subjektivnim je već izrečen razlog a objektivne su da je TEP ipak znatno skuplja metoda operiranja. Pošto i operacije po Lichtensteinu primjenom jednostruke ili dvostruke mrežice omogućuju izvrstan postoperativni rezultat a ističem i prednost operiranja u lokaknoj analgeziji, smatram da TEP ima svoju primjenu kod obostranih vidljivih preponskih kila kao i kod recidivnih preponskih kila. Komplikacije uz dobru tehniku operiranja su izrazito rijetke. Radi se o seromima koji se liječe punkcijom. Do sada nakon TEP-a niti jedna infekcija mrežice.

183 - ABDO

SAFETY AND ADVANTAGES OF LAPAROSCOPIC-ASSISTED COLECTOMY

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Aim: Laparoscopic surgery, especially laparoscopic rectal surgery, for colorectal cancer has been developed recently. However, due to relatively complicated anatomy and high requirements for surgery techniques, laparoscopic colectomy develops relatively slowly. This study was designed to report our early experience with laparoscopic-assisted colorectal procedures in our Department of Surgery and the important lessons we have learnt from this.
Materials and Methods: The first laparoscopic colon resection was performed at our Department on January 16th 1996. Until 2005 we performed 38 operations, for benign and malignant diseases. Clinical and operative records of these patients were reviewed. Data retrieved included patient demographics, selected intraoperative parameters, and postoperative outcome. Over the same period we performed 1207 matched open surgical procedures and these patients were accrued and similarly analyzed. All data were entered into a database and analyzed using a statistical software package.
Results: The diagnoses included cancer (92.1% versus 95%), polyps (5.3% versus 3.1%) and rectovaginal fistula (2.6% versus 1.9%). Four (10.5%) were converted to open surgery because of bleeding and locally advanced disease. Laparoscopic-assisted procedures performed included 6 right hemicolectomy, 9 left hemicolectomy, 7 anterior resections and 16 abdominoperineal resections. Mean operative time was longer for laparoscopic-assisted colectomy (208 minutes versus 150 minutes, $p<0.05$). Mean duration of analgesic requirements (2.5 days versus 4.5 days, $P=0.008$), mean time to commencement on oral diet (2.42 days versus 3.95 days, $P=0.005$) and mean length of hospital stay (7 days versus 11 days, $P=0.007$) were all shorter. Morbidity rates (13.1% versus 40.1%, $P<0.05$) were lower. No respiratory and local wound complications were found in our laparoscopic-assisted group.
Conclusions: Laparoscopic-assisted colorectal procedures performed in well-selected patients have statistically and clinically significant benefits and it can be regarded as a safe and effective procedure.

193 - ABDO

ACCIDENTAL FINDINGS DURING LAPAROSCOPIC CHOLECYSTECTOMY

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Aim: To asses the diagnostic benefit of laparoscopic examination of abdominal cavity during laparoscopic cholecystectomy.
Methods: A retrospective review of 512 laparoscopic cholecystectomies performed in our hospital in the period 1995-2005, was undertaken. An analysis of operative reports and patient records was presented.
Results: Among the 512 laparoscopic cholecystectomies performed, the following accidental findings were identified: 11 gastric ulcers, 2 gastric cancers, 2 gallbladder cancers, 1 metastasic lesion of the liver, 1 hydatid liver cyst, 1 accessory spleen, 2 colon cancers, 2 ovaric cancers.
Conclusion: Laparoscopic cholecystectomy, besides being a gold standard in the treatment of calculous gallbladder disease, also has its importance as a diagnostic procedure. Introducing a laparoscope is especially diagnostically valuable in asimptomatic abdominal pathology.

195 - ABDO

SLEEVE GASTRECTOMY

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Background: Sleeve gastrectomy was recently introduced into the therapeutic arsenal of the bariatric surgeon. it is a restrictive procedure that reduces stomac capacity by 75%. after a few years before body weight starts to rise again, it can be proceeded with by pass or other restrictive- malabsorbtive procedure. mostly it is performed at super obese patients.
Methods: Four patients with bmi of 51- 54 underwent sleeve resection. among them one was previously treated with adjustable gastric band which was removed because of slippage.
Results: There were no perioperative morbidity. hospital stay was 4 days. they were all complety mobilized on the day of the surgery.
Conclusions: Sleeve resection is safe operation and is an alternative to other more mutilant procedures in a case of super obesity. long term results require further investigation.

196 - ABDO

LAPAROSKOPSKA ABDOMINOPERINEALNA RESEKCIJA REKTUMA S TOTALNOM MEZOREKTALNOM EKSCIZIJOM

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Da bi bili ispoštovani osnovni kirurško onkološki kriteriji, cilj svake radikalne operacije malignoma kolona i rektuma je adekvatna limfadenektomija. Kod malignoma rektuma je uz visoko podvezivanje arterije i vene mezenterike inferior obavezno učiniti totalnu mezorektalnu eksciziju.
Naš video pokazuje jednu od takvih operacija. Zahvat započinje mobilizacijom sigme i identifikacijom lijevog uretera koji se prikaže sve do njegovog utoka u mjehur. Disekcijom peritoneuma iznad velikih krvnih žila mobilizira se sigma i rektum uz vizualizaciju i prikaz desnog uretera, također do njegovog utoka.
Nakon identifikacije i visoke disekcije arterije i vene mezenterike inferior disecira se Toldova fascija sve do promontorijuma tako da se uđe u sloj između presakralne i perirektalne fascije uz vizualizaciju i očuvanje hipogastričnog pleksusa. Nakon disekcije kolona pristupi se perinealnom aktu operacije koji se završava tamponadom i drenažom zdjelice i kreiranjem stome na mjestu uboda lijevog troakara.

200 - ABDO

LAPAROSKOPSKA RESEKCIJA REPA PANKREASA SA SPLENEKTOMIJOM

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U izabranim slučajevima kirurgije pankreasa laparoskopski postupak zauzima sve čvršće mjesto.Imajući u vidu studije izabranih centara, koje se odnose na resekcije repa pankreasa i njihove dobre rezultate, laparoskopski način operiranja pankreasa ipak za kirurga još uvijek predstavlja tehnički izazov.
Materijal i metode: Pokazati ćemo laparoskopsku resekciju repa gušteraće sa splenektomijom kod 57 starog bolesnika sa cistom repa gušteraće i trombozom lijenalne vene.Za pristup u abdominalnu šupljinu korištena su četri rombično pozicionirana troakara.Nakon eksploracije abdominalne šupljine i otvaranja burze prikazan je pankreas sa u repu smještenom cističnom tvorbom.Incidira se retroperitoneum, te nakon pristupa u željeno područje rep pankreasa sa cistom pažljivo se odvoji od okolnih struktura.Isprepariraju se, dvostruko klemaju i presjeku a.i.v.lienalis.Rep gušteraće se potom presjeće ultrazvučnim disektorom.Resecirani rep gušteraće i slezena odvoje se od retroperitoneuma, stave u endo vrečicu i potpunosti odstrane a resecirana površina pankreasa zbrine se pojedinačnim šavima.Operativi i postoperativni tijek prošli su bez komplikacija. U drugom slučaju radilo se o bolesniku sa cističnim tumorom tjela pankreasa veličine 6x6x6cm dobro ograničenim od okoline.Glava i rep gušteraće bili su intaktni.Nakon presjecanja retroperitoneuma i prikaza krvnih žila (v.porte i v lienalis) te njihovog odvajanja od tkiva pankreasa, presjeće se pankreas uz glavu linearnim staplerom. Zatim, pazeći da se ne ozljedi v. lienalis ispreparira se pankreas u predjelu repa i presjeće iza tumora.Resecirano, tumorski promjenjeno tkivo tkivo pankreasa stavi se u endo vrečicu i u potpunosti odstrani. Rep pankreasa koji je ostao in situ anastomozira se s vijugom jejunuma. Operativni i postoperativni tijek prošli su bez komplikacija.
Zaključak: Laparoskopski zahvati mogući su kod benignih tumora pankreasa uz odgovarajući kirurški standard. Laparoskopska resekcija pankreasa još uvijek nije standardizirana metoda i nije prihvaćena kao operativna tehnika unatoč svim prednostima minimalno invazivne kirurgije. Stoga se nadamo,da će se postupci koje smo mi prikazali pokazati kao dobra alternativa u potrazi za standardiziranjem laparoskopskih zahvata na pankreasu.

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LAPAROSKOPSKA APENDEKTOMIJA SUPRAPUBIČNIM PRISTUPOM

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Laparoskopski način operiranja upaljenog crvuljka je usavršavan zadnjih desetljeća.Nakon prvih laparoskopskih apendektomija koje su na našoj klinici učinjene 1993.g. postupno smo mijenjali položaj troakara.Cilj je bio postiči što bolji kozmetski učinak i što brži oporavak bolesnika,a što je jednako važno osigurati položaj operacijskog tima i položaj troakara koji će omogućiti sigurno i uspješno izvođenje apendektomije.Nakon prvih iskustava s kozmetskim laparoskopskim kolecistektomijama odlučili smo se i apendektomije raditi s istim položajem troakara, te položajem kirurga između raširenih nogu bolesnika. Želja je bila poboljšati kozmetski dojam i skratiti vrijeme oporavka bolesnika, reducirajući promjer instrumenata i troakara ili premještanjem dvaju troakara u suprapubičnu regiju. Opisali smo naša iskustva u laparoskopskoj apendektomiji upotrebom tri troakara i njihovim smještajem ispod bikini linije.
Metode: Između 2002. i 2006.g.učinili smo 78 laparoskopskih apendektomija upotrebom dva suprapubična troakara.
Rezultati: Vrijeme trajanja laparoskopske apendektomije je bilo 36,3+8,3min.Bolesnici su se brzo oporavljali uz neznatnu upotrebu analgetika,brzo ustajali iz postelje te rano započinjali s prehranom.Komplikacija u vezi s ranama nije bilo.Kod jednog bolesnika s perforiranim gangrenoznim apendiksom postoperativno se razvio ileus.Boravak bolesnika u bolnici nakon laparoskopske apendektomije suprapubičnim pristupom bio je prosječno 3,1+0,8 dana.
Zaključak: Laparoskopska apendektomija s dva suprapubična troakara je sigurna kirurška metoda s dobrim kozmetskim rezultatom.Unatoč svemu,kozmetska laparoskopska apendektomija trebala bi se bazirati na pažljivoj evaluaciji kod svakog slučaja individualno.

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LAPAROSKOPSKO LIJEČENJE DIJAFRAGMALNIH KILA

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Razdoblje laparoskopske kirurgije ponudilo je značajne promjene i u liječenju dijafragmalnih hernija. Mrežica koja se ugrađuje u otvor dijafragmalne kile mora biti izgrađena od neresorptivnog materijala, čvršća od mrežice koja se upotrebljava kod ingvinalnih kila, a važna je debljina kao i način pletenja mrežice. U našem radu.koristili smo ETHICON, PROCEED SURGICAL MESH PCDN1.
Materijal i metode: U radu su prikazana dva slučaja laparoskopskog načina liječenja dijafragmalnih hernija.Bolesnici su pristupili operativnom zahvatu radi liječenja GERD-a uzrokovanog hijatalnom hernijom. Kod prvog bolesnika(70 godina) je prilikom torakotomije učinjne radi neo procesa pluća prije deset godina intraoperativno dijagnosticirana velika dijafragmalna hernija koja se zbog opće lošeg stanja bolesnika tada nije operirala.Uz operaciju po Nissnu laparoskopskom metodom pristupilo se i laparoskopskom zbrinjavanju dijafragmalne kile.Prvo se kilni sadržaj reponira u abdominalnu šupljinu.Preko kilnog otvora nakon skidanja sloja peritoneuma postavi se Eticonova mrežica (Proceed Surgical mesh PCDN 1), a potom fiksira pojedinačnim kvačicama i prekrije peritonealnim zastorom.
U drugom slučaju radilo se o 65 godina starom bolesniku kod kojeg je tijekom obrade zbog GERD-a CT-om verificirana tumorozna intratorakalna tvorba koja svojom veličinom kompromitira rad srca. Po gustoći tkiva sumnjalo se na intratorakalni lipom te je predložena torakotomija.Pristupilo se laparoskopskoj operaciji gdje se nakon uvođenja laparoskopa pokaže da se radi o dijafragmalnoj kili čiji sadržaj čini omentum. Sadržaj kilne vreče se reponira u abdominalnu šupljinu a preko kilnog otvor plasira mrežica(Eticon Proceed Surgical Mesh PCDN 1) koja se fiksira pojedinačnim kvačicama. Bolničko liječenje u oba slučaja trajalo je pet dana. Kontrolna rtg i CT obrada dokazuju uspješnost ovakvog liječenja dijafragmalnih hernija.
Zaključak:Naši rezultati laparoskopskog načina zbrinjavanje dijafragmalnih hernija uz uporabu odgovarajućih materijala (PCDN 1) pokazali su sve prednosti minimalno invazivne kirurgije .

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OPRAVDANOST LAPAROSKOPSKE OPERACIJE UPALE CRVULJKA S PERFORACIJOM

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Uvod: Apendektomija laparoskopskom tehnikom je prihvaćena metoda liječenja bolesnika s akutnom upalom crvuljka.Sporna je laparoskopska apendektomija kod bolesnika s akutnom upalom i perforacijom crvuljka uz popratni peritonitis.
Cilj: Prikazati rezultate laparoskopske apendektomije kod bolesnika s perforiranom upalom crvuljka i odrediti ulogu i vrijednost operacije laparoskopskom tehnikom.
Metode: Retrospektivnom studijom obuhvaćeni su svi apendektomirani bolesnici zbog perforirane akutne upale crvuljka.
Rezultati: U razdoblju od 22.04.1994. do 31.10.2006. godine laparoskopskom tehnikom ukupno je učinjeno 1000 apendektomija.Gangrenozna upala sa perforacijom crvuljka bila je kod 142 (14,2%)bolesnika,a s difuznim peritonitisom kod 85 (8,5%)bolesnika.Za vrijeme operacije su bile 3 (2,1%) komplikacije,a nakon operacije 7 (4,9%).Kod 5 (3,5%) bolesnika učinjena je konverzija laparoskopske u otvorenu operaciju.Nije bilo smrtnog ishoda.
Zaključak: Laparoskopska apendektomija kod bolesnika s akutnom gangrenoznom upalom i perforacijom crvuljka je sigurna i učinkovita operacijska tehnika, a uz sve prednosti minimalno invazivnih kirurških zahvata omogućuje značajno bolju intraoperacijsku toaletu trbušne šupljine.

214 - ABDO

LAPAROSKPSKA EKSPLORACIJA HOLEDOHUSA- NAŠE DILEME I ISKUSTVA

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Lap. eksploracija holedokusa u jednom aktu, predstavlja suvremen pristup trajnom rješavanju holedoholitiaze, od operatera zahtjeva jedino dodatna znanja fleksibilne endoskopije.
U našoj ustavnovi skupljamo iskustva od 1993 godine. Holedohoskopija endoskopom promjera 5 mm bila je moguća u izabranim slučajevima izrazite dilatacije žučnih puteva. Primjenom novog instrumenta, od 2003 godine , holedohoskopija postaje rutinski zahvat u op. sali. Ustupa mjesto kontrastnoj pretrazi biliarnih puteva, sa bitnim prednostima. Smanjili smo broj pacijenata koji zahtjevaju ERCP in EPT u drugoj ustanovi i time isplatili nabavku instrumenta u jednoj godini. Rezultat od 86 % uspješnog odstranjenja kamenaca uz minimalno produženo vrijeme operativnog zahvata (oko 20 min.), postavlja nove smjernice u trajnom rješavanju kompleksne patologije žučnih kamenaca uz očuvanje anatomije Odijevog sfinktera.
Smatramo da je uz odgovarajuće preinake instrumenta, holedohoskopiju moguće prihvatiti kao trajan izazov svakog laparoskopskog zahvata žučnjaka i žučnimh puteva.
Od 2003 smo napravili 85 lap. eksploracija holedokusa zaradi kamenaca, od toga 17 kod klasičnog zahvata (ali konverzije). Transcistična eksploracija je bila uspješna u 82 % slučajeva, kod ostalih je slijedila laparoskopska holedohotomija.
Navodimo dva primjera slučajno otkrivenog malignoma papile te 2 primjera laparoskopsko postavljenog stenta zaradi privremene biliarne drenaže.

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LAPAROSKOPIJA KOD AKUTNOG ABDOMENA

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Razvojem laparoskopije tijekom 90-tih godina povećala se njezina upotreba u rješavanju akutnog abdomena i traume. Pored dijagnostičke vrijednosti ona je omogućila i terapijsko rješavanje problema sa posljedičnim smanjenjem duljine hospitalizacije i troškova liječenja. Kod cirkulatorno stabilnih traumatiziranih bolesnika laparoskopija je omogućila drastično smanjenje broja nepotrebnih laparotomija. To smanjenje je veće kod tupih ozljeda u odnosu na penetrantne. Akutni abdomen je također područje sa sve većom upotrebom laparoskopije u dijagnostičke i terapijske svrhe. Osobito pogodni bolesnici su oni starije dobi, žene generativne dobi, te djeca. Točno mjesto i uloga laparoskopije nisu jasno određeni i nakon višegodišnje upotrebe. Razlozi su vjerojatno nedostatak većih multicentričnih studija te potreba dodatne edukacije iz laparoskopije koja je invazivna metoda sa svojim mogućim teškim komplikacijama. Operacijski zahvati vezani uz rješavanje akutnog abdomena su većinom zahtjevniji u smislu laparoskopske kirurške tehnike te je i to jedan od razloga za posezanjem za klasičnim zahvatom. Mi smo prva iskustva sa laparoskopijom kod akutnog abdomena i traume prikazali na I Hrvatskom simpoziju endoskopske kirurgije u Zagrebu 1993.g. Međutim, vjerojatno iz razloga navedenih ranije nije postojala standardna metoda kuće, već je praktički vezana za jedan laparoskopski tim. Zato smatramo važnim održavanje ovog okruglog stola koji bi po nama trebao pokušati odgovoriti na neka pitanja u cilju da poveća upotrebu laparoskopije u svakodnevnom radu. T pitanja bi bila: 1) zašto laparoskopija kod akutnog abdomena i traume? 2) kada pristupiti laparoskopski? 3) tko treba raditi laparoskopiju? Možda će odgovori na ta pitanja pomoći u određivanju algoritma kod bolesnika sa akutnim i traumom danas.

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TEHNIKA LAPAROSKOPSKE APENDEKTOMIJE-TRINAESTOGODIŠNJE ISKUSTVO

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Iako ne postoji općeprihvaćeno stajalište o prednosti laparoskopske apendektomije u odnosu na klasičnu, unatoč brojnim objavljenim usporedbama, kako kod nas, tako i u svijetu, i mi smo, u zadnjih trinaest godina, spoznali vrijednost ove metode. U prvoj polovici 90-tih godina prošlog stoljeća, kada smo učinili prvu laparoskopsku apendektomiju, npr za hemostazu smo koristili ili metalne klipseve ili bipolarnu elektrodu, rijetko monopolarnu elektrodu. Bataljak crvuljka zbrinjavali smo isključivo koristeći omče. Danas hemostazu postižemo upotrebom Liga Sure-a ili harmoničkog rezača, dok za opskrbu bataljka crvuljka koristimo i dalje omče, a također i stapler, ovisno o širini baze crvuljka. Do danas se bitno skratilo i vrijeme operacije, od oko 90 minuta u početku, do sadašnjih oko 20-tak minuta. Unatoč prednostima koje smo uvidjeli tijekom ovih godina, prvenstveno zahvaljujući novim tehnologijama, ni u našoj ustanovi laparoskopska apendektomija nije postala rutinska metoda.

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LAPAROSKOPSKA PROKTOKOLEKTOMIJA S ILEOANALNIM SPREMNIKOM

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Uvod: Zbog tehničke zahtjevnosti, visokog postotka komplikacija i konverzija sporna je uloga laparoskopije u sigurnom izvođenju totalne proktokolektomije
Cilj: Prikazati asistiranu laparoskopsku totalnu proktokolektomiju s oblikovanjem ilealnog spremnika, te anastomozom spremnika i anusa.
Metoda: Laparoskopska totalna ekstirpacija kolona i rektuma s prezervacijom anusa, ekstrakcija resektata na suprapubičnu minilaparotomiju, oblikovanje ilealnog spremnika, ekscizija sluznice analnog rektuma i oblikovanje anastomoze spremnika i anusa mehaničkim cirkularnim šivačem.
Rezultat: Djevojka 19 godina starosti operirana je zbog porodične adenomatozne polipoze (FAP). Prethodno je klasičnim načinom otvorenom tehnikom operiran otac zbog perforiranog karcinoma na sigmoidalnom dijelu debelog crijeva, komplikacije FAP, te brat zbog FAP. Operacija je izvedena laparoskopskom tehnikom s četiri troakara i suprapubičnom poprečnom incizijom trbušne stijenke dužine 6 cm, a trajala je 196 minuta. Nije bila potrebna transfuzija krvi. Nije učinjena protektivna ileostomija. Poslijeoperacijski tijek bio je uredan. Bolesnica je otpuštena kući sedmi dan nakon operacije uz potpunu kontrolu pražnjenja crijevnog sadržaja.
Zaključak: Totalna proktokolektomija s ilealnim spremnikom, te anastomozom spremnika i anusa može se izvesti laparoskopskom tehnikom sigurno i učinkovito. Metoda je za iskusne kirurge u laparoskopiji debelog crijeva dobra alternativa otvorenoj kirurškoj metodi.

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LAPAROSCOPIC PROCEDURES IN EMERGENCY ABDOMINAL SURGERY

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Background and Aims: Although laparoscopic method could be used to perform almost all procedures in abdominal surgery, the method remains controversal for the management of emergencies, due to its associated higher complications and conversion rate than for elective laparoscopic surgery. The aim of this report is to describe our experience with emergency laparoscopic procedures during a 3-year period.
Patients and Methods: Patients who underwent emergency laparoscopic surgery between January 2004 and October 2006 were retrospectively analized. Total of 71 patients (44 women and 27 men) 17 to 72 years of age were included.

Patients included in the study were treated for suspected acute cholecystitis, acute appendicitis, abdominal trauma and acute abdomen of uncertaine origin. The diagnoses were based on clinical, laboratory and echographic examinations.
Results: Seven patients had just laparoscopic exploration, in 5 of them procedure was not continued (mesenterial thrombosis) and 2 needed open surgcal procedure. Of other 64 patients, in 61 patient relief of simptoms occurred within 48h of laparoscopic procedure, 1 patient (0,6%) required conversion from laparoscopic to open cholecystectomy due to bile duct injury, and 2 patients (1,3%) were additionay treated for postoperative infections of trocar insertion. No reoperation was necessary, and there was no mortality.
Conclusion: Our results show that complication and conversion rate decreases with experience of a surgeon and that laparoscopic surgery should be considered more often as the treatment of choice for emergency abdominal surgery.

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INGUINAL TOTAL EXTRAPERITONEAL ENDOSCOPIC PATCH PLASTY - TECHNIQUE, INDICATION, RESULTS

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The TEP technique is shown by schematic presentation and operation video. Technical details are figured out of authors` 12 years experience with TEP.
In our experience less than 3% of cases are not suited for TEP depending on patients` factors like previous operations, age and comorbidity but not on the characteristics of the hernia itself like size of hernia ring and sac or incarceration.
Typical complications are shown by literature and own experience partly with video documentation.
There is evidence in the literature that endoscopic techniques have a lot of advantages over conventional techniques. These are especially the shorter recovery and less acute and in particular chronic pain.
TEP has some benefits on TAPP: the peritoneal cavity is not touched, no mesh fixation is necessary, mesh placement can be controlled excellently whilst CO2 deflation, there is lower risk of obstructive ileus.
In conclusion TEP is a safe repair for the majority of inguinal hernias with low recurrence rate with benefits on conventional techniques as well as some on TAPP.

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VIDEO PRESENTATION OF LAPAROSCOPIC UMBILICAL HERNIA REPAIR

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Aim of study: We want to show our first two cases of laparoscopic umbilical hernia repair. Both of them were women average age 50 years . In both of them we used Proceed dual surgical mesh .
Methods: The procedure was performed under general anestesia. Skin incision for Veress needle we made in the left subcostal region and 30 degree laparoscope was introduced through the same incision. Under direct visualisation another three trocars (two 5 mm and another of 10 mm) was introduced in the abdomen, as far lateral as possible. When all contents of the hernial sac were reduced into the peritoneal cavity, hernia sac was left in situ. Then, surgical dual proceed mesh was introduced into abdomen and using endoscopic suture - paser , sutures pulled extracorporeally, tied and pushed down to the anterior fascial layer. With these procedure mesh was overlap the defect by at least 3 cm in all direction. We made some additional stapler fixation.
Results: Mean operative time was 100 minutes without perioperative complications and mean discharge from the hospital was 4 days with a mean return to a normal activityof 2 weeks.
Conclusion: Because lower reccurence, postoperative infections and shorter hospital days laparoscopic repair of umbilical hernia is major addition to the surgical treatment for this difficult problem.

ENDOSKOPSKI ZAHVATI U TORAKALNOJ KIRURGIJI

ENDOSCOPIC PROCEDURES IN THORACIC SURGERY

88 - THOR

DOPRINOS VATS-A U DIJAGNOSTICI I TERAPIJI PLUĆNIH BOLESTI

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Procijena vrijednosti VATS-a u dijagnostici i terapiji plićnih bolesti. Cilj rada bio je evaluirati VATS kao manje invazivnu kiruršku metodu u dijagnosticiranju i liječenju plućnih bolesti. VATS postupkom obuhvaćeno je 79 bolesnika prosječne dobi 56 godina života, od toga dijagnostički 54, terapijski 17, dijagnostičko.- terapijski 8. U histološkoj dijagnozi najviše je zastupljen Mezoteliom pleure i to 12 pacijenata, zatim slijede karcinom pluća 7 pacijenata, kronična upala pleure sa 6 pacijenata …
Poslijeoperacijske komplikacije javile su se u tri bolesnika i to u dva bolesnika kao produženi leak zraka, te u jednom bolesniku kao recidiv pleuralnog izljeva. Prosječna dužina liječenja iznosila je 5,2 dana.
VATS tehnikom smanjena je trauma prsnog koša i ubrzan oporavak bolesnika, poslijeoperacijski nije nužan smještaj bolesnika u JIL-u, te je vrijeme hospitalizacije je kraće.
Ključne riječi: VATS, plućne bolesti, komplikacije.

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ACHALASIA: OPTIMAL SURGICAL PALIATION

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Achalasia is a degenerative esophageal disease culminating in aperistalsis of the esophageal body and abnormal relaxation of the lower esophageal sphincter. The underlying cause of this T-cell mediated destruction and eventual fibrous replacement of the esophageal myenteric neural plexus is unknown.(Goldblum, Whyte et al. 1994; Goldblum, Rice et al. 1996; Clark, Rice et al. 2000). Patients seek medical attention only after significant, irreversible damage to the esophageal myenteric neural plexus has occurred. Thus treatment is palliative. But what are the goals of palliation?
Symptom relief has been the solitary measure and goal of successful treatment. However, by itself it is a poor assessment, since 30% of treated patients with symptom control have poor esophageal emptying by barium radiographs.(Vaezi, Baker et al. 1999). The reasons for symptomatic success but physiologic failure are multiple. Symptom may be falsely reduced because of generalized poor perception of swallowing, sensory denervation, esophageal dilatation and placebo effect of treatment. Incomplete myotomy or obstructing fundoplication are common causes of treatment failure.
In addition to palliation of symptoms, the goals of treatment of achalasia must be physiologic and include preservation of the esophagus as a passive conduit while avoiding gastroesophageal reflux.
The pre-treatment status of patients with achalasia is defined by symptom assessment, manometry and timed-barium esophagram. Timed barium esophagogram allows quantification of esophageal obstruction and emptying. After ingestion of a pre-measured amount of barium, usually 250 ccs, spot films are taken at 1-,2-,5 minute intervals and if necessary at 10 minutes and 20 minutes after barium ingestion (de Oliveira, Birgisson et al. 1997; Kostic, Rice et al. 2000).
Operative palliation of achalasia requires a balancing of improved esophageal emptying with fostering reflux. This is best achieved by combining a modified Heller myotomy with a Dor (partial anterior) fundoplication.(Richards, Torquati et al. 2004; Rice, McKelvey et al. 2005) This is most effectively accomplished by laparoscopy. Pneumatic dilation and Botox therapy are second and third line management options.
After recovery from therapy, (usually 8 weeks after therapy) symptomatic and physiologic assessments should again be made. Physiologic assessment includes timed barium esophagram, manometry and 24-hour pH monitoring. This process identifies patients who 1) are treatment failures 2) have discordance between symptomatic and physiologic assessments and 3) need prophylactic PPI therapy to control gastroesophageal reflux. Timed barium esophagram is extremely useful for chronic follow-up, necessary to preserve a myotomized esophagus.

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VIDEOASSISTED THORACOSCOPIC SURGERY FOR SPONTANEOUS PNEUMOTHORAX

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Aim: Spontaneous pneumothorax (SP) is the sudden and unexpected collection of air from the lung in the pleural space with the resulting collapse of the lung usually caused by congenital abnormality or acquired lung diseases. The aim of this study is to identify surgical outcome of minimally invasive approach using video-assisted thoracoscopic surgery (VATS) in the treatment of SP.
Methods: This is a retrospective clinical study conducted on 240 consecutive patients operated on for SP in University Surgical Hospital, Thoracic Surgery Department, Split, Croatia, between October 1996 and September 2005. Patients characteristics, type of surgery, complication rate and final surgical and functional outcome were analyzed. Median follow up was 54 months.
Results: VATS was used in all patients, where bullectomy or wedge resection with or without pleurodesis/pleurectomy was performed in most cases. Conversion to standard thoracotomy was required in 5 patients (2%). There was no operative mortality. Altogether 20 patients (8%) needed a reoperation. Twelve patients (5%) were reoperated on within one month from surgery, most often due to prolonged air leakage (10 patients, 4%) and bleeding (2 patients 0,8%). Ten (4%) patients were operated on because or recurrent pneumothorax, on average 17 months (range 1 to 40 months) after the primary operation. Functional effects of VATS procedure was very satisfactory to excellent.
Conclusion: VATS procedure nowadays is a golden standard in primary treatment of SP. It is both safe and effective procedure with minimal complication rate and excellent functional effects.

ENDOSKOPSKI ZAHVATI U GINEKOLOGIJI

ENDOSCOPIC PROCEDURES IN GYNAECOLOGY

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LAPAROSKOPSKA MIOMEKTOMIJA

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Uvod: Endoskopske operacije mioma predstavljaju jedan od većih izazova u minimalnoj invazivnoj kirurgiji i zahtijevaju izuzetnu spretnost operatera. U usporedbi s klasičnom abdominalnom miomektomijom imaju nekoliko prednosti; kraće vrijeme hospitalizacije, brži oporavak, smanjeni broj priraslica i manju količinu intraoperativno izgubljene krvi. Napredak u kirurškoj tehnici i instrumentima dopušta sigurno odstranjenje i uspješnu reparaciju stjenke uterusa čak i kod velikih ili multiplih intramuralnih mioma. Važno je napomenuti kako je čak i laparoskopska miomektomija prava operacija i često zahtjeva nekoliko tjedana oporavka.
Cilj: usporediti različite kirurške tehnike i indikacije za operaciju kao i različite načine reparacije uterusa nakon laparoskopske miomektomije.
Metode: Kreirana je retrospektivna studija koja je obuhvaćala 136 pacijentica s dijagnosticiranim miomima uterusa. Podaci su obuhvatili vremenski period od siječnja 2003.g. do siječnja 2006.g. Vodeći simptomi su bili neplodnost, menometroragije, dismenoreje, tumorske tvorbe uočene ultrazvučnim pregledima ili kombinacije navedenog.
Rezultati: Učinjeno je 116 (85%) laparoskopskih i 20 (15%) klasičnih abdominalnih miomektomija. Indikacije za obje kirurške tehnike su bile vrlo slične. Prosječno vrijeme trajanja operacije kod laparoskopija je bilo 90 minuta (od 30-240 minuta) dok je za izvođenje klasične miomektomije bilo potrebno oko 55 minuta (od 30-90 minuta). $P<0,05$. Prosječna veličina miomatoznih čvorova kod izvođenja laparoskopskih miomektomija je bila 5,2 cm (2-12 cm), nasuprot veličini od 9 cm (5-12 cm) kod klasične miomektomije. $P<0,05$. Prosječno vrijeme provedeno u bolnici nakon laparoskopskog zahvata je bilo 3 dana nasuprot 8 dana nakon klasične miomektomije. $P<0,05$. Konverzija laparoskopske metode u klasičnu abdominalnu operaciju bila je svega 1%. Također su uspoređivane dvije različite metode reparacije uterusa nakon laparoskopske miomektomije; produžnom šavi tenisice i Keksteinovom metodom pojedinačnih intrakorporalnih šavi blizu-daleko daleko-blizu. Kvaliteta šavi u obje grupe pacijentica bila je jednaka i nisu primijećene postoperativne komplikacije.
Zaključak: Laparoskopska miomektomija je kvalitetna alternativa klasičnoj abdominalnoj miomektomiji. U usporedbi sa klasičnim načinom prednost laparoskopske miomektomije je u kraćem odnosno minimalnim vremenom provedenom u bolnici i puno bržem oporavku. Laparoskopska miomektomija ima prednost i u smanjenom postoperativnom korištenju analgetika. Najnoviji dokazi favoriziraju sigurnost i pouzdanost laparoskopske miomektomije.

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UPOTREBA HARMONIČNOG NOŽA KOD IZVOĐENJA TOTALNE LAPAROSKOPSKE HISTEREKTOMIJE

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Uvod: Napretkom laparaskopske tehnike omogućeno je izvođenje složenijih operacija uz kraći oporavak pacijenta nego pri klasičnim operacijama. Totalna laparoskopska histerektomija je metoda histerektomije pri kojoj se prerezivanje uterinih arterija, kao i otvaranje odnosno zatvaranje vaginalne stijenke izvodi laparoskopskim putem, a uterus se odstrani kroz vaginu. Takav način može u mnogo slučajeva biti alternativa klasičnoj abdominalnoj histerektomiji.
Cilj: Analizirati mogućnost uporabe harmoničkog noža pri izvođenju laparoskopske histerektomije.
Cese report: Kroz četiri slučaja TLH prezentiramo naša iskustva u korištenju ultrazvučnih laparoskopskih tehnika. Sve laparoskopske operacije su uspješno dovršene. Krvne žile i tkiva su koagulirana i rezana ultrazvučnim nožem pri čemu se postigla izuzetno dobra hemostaza. Tijekom operacija primijećena je minimalna količina dima.
Rezultati: Težine uterusa su bile od 300-800 g. Prosječno trajanje operacije je bilo od 60-90 min. Ukupna količina izgubljene krvi je bila uglavnom ispod 100 mL. Nije bilo značajnijih postoperativnih komplikacija. Sve pacijentice su otpuštene iz bolnice treći postoperativni dan.
Zaključak: Minimalna invazivna kirurgija poboljšanjem tehnike ali i iskustva operatera pronalazi svoje mjesto i kod složenijih ginekoloških operacija. Ona također pokazuje mnoge prednosti i za pacijente, kao što su lakši i brži oporavak, kraće vrijeme provedeno u bolnici, i smanjena količina izgubljene krvi intraoperativno.

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HISTEROSKOPSKA ABLACIJA ENDOMETRALNIH POLIPA I NJIHOV MALIGNI POTENCIJAL

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Uvod: Endometralni polipi predstavljaju lokalne izrasline endometrija. Uglavnom ih nalazimo kod žena u postmenopauzi, no čest su nalaz i kod pacijentica liječenih zbog neplodnosti, na nadomjesnoj hormonskoj terapiji i pacijentica liječenih tamoxifenom zbog karcinoma dojke. Histeroskopskom tehnikom omogućeno je odstranjivanje polipa u cijelosti, osigurano dobivanje adekvatnog preparata za patohistološku analizu, a kod pacijentica liječenih zbog neplodnosti omogućena i vizualna inspekcija i odstranjivanje drugih nepravilnosti kavuma uterusa.
Cilj: analizirati mogućnost maligne alteracije endometralnih polipa i prednosti histeroskopske metode kod rješavanja druge patologije kavuma uterusa.
Metode: Analizirana je medicinska dokumentacija 139 pacijentica podvrgnutih operativnoj ili dijagnostičkoj histeroskopiji tijekom zadnje 2 g.
Rezultati: Učinjeno je; 29 (21%) dijagnostičkih histeroskopija u obradi primarne ili sekundarne neplodnosti, 74 (53,2%) polipektomije, 14 (10%) miomektomija, 10 (7,2%) resekcija septuma uterusa, 8 (5,8%) ekstrakcija IUD-a, 3 (2,2%) ablacije endometrija i 1 (0,71%) tumorektomija iz cervikalnog kanala. Patohistološkom analizom identificiran je 71 (95,94%) benigan endometralni polip, 2 (2,71%) polipa sa kompleksnom hiperplazijom endometrija i 1 (1,35%) maligno promjenjeni polip dijagnosticiran kao adenokarcinom endometrija. Kompleksna hiperplazija kao i maligna alteracija polipa uočena je u skupini pacijentica starijoj od 55 godina.
Zaključak: Maligna alteracija endometralnih polipa prema literaturi kreće se od 0,5-1,5% uglavnom u posmenopauzalnih žena. Budući da osigurava odstranjivanje endometralnog polipa u cijelosti, bez obzira na cijenu zahvata i moguće komplikacije, histeroskopska ablacija endometralnih polipa je metoda izbora kod ablacije polipa i u postmenopauzalih žena. Također je jedna od neizostavnih metoda liječenja neplodnosti u ovisnosti o patologiji, a nakon kvalitetne obrade pacijentice, zbog mogućnosti vizualizacije i rješavanja nepravilnosti kavuma uterusa u istom aktu.

107 - GYNA

ULOGA LAPAROSKOPIJE U DIJAGNOSTICIRANJU I LIJEĆENJU EKTOPIČNE TRUDNOĆE

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Cilj. Analizirati mogućnosti i sigurnost operativne laparoskopije u dijagnosticiranju i liječenju ektopične trudnoće.
Metode. Retrospektivnom studijom su analizirani podaci 185 pacijentica s ektopičnom trudnoćom, koje su bile liječene operativnom laparoskopijom na Odjelu za ginekologiju i porodništvo Kliničke bolnice Osijek u razdoblju od 2000. do 2005. godine.
Preoperativno je svim pacijenticama učinjena kompletna dijagnostička obrada: anamneza, klinički pregled, transvaginalni ultrazvuk, beta HCG. Na temelju kriterija proizašlih iz dijagnostičke obrade laparoskopski su liječene pacijentice sa sumnjom na ektopičnu trudnoću.
Rezultati. U 102 (55,13%) slučajeva je nađen tubarni abortus, u 80 (43,24%) slučajeva ruptura tube, u 2 (1,08%) slučaja nađena je intersticijska trudnoća, te u samo jednom slučaju (0,54%) ovarijalna trudnoća.
Operacijska tehnika je u 171 (92,43%) slučajeva bila laparoskopija, te 14 (7,56%) laparotomija. Kod l77(95,67%) pacijentica je učinjena salpingektomija, a u samo 9(4,86%) pacijantica salpingotomija, te u jednom slučaju adneksektomia (0,54%). Nije bilo značajnijih postoperativnih komplikacija. Većina pacijentica je otpuštena iz bolnice treći postoperativni dan.
Zaključak. Studija pokazuje da je uporaba operativne laparoskopije u liječenju ektopične trudnoće sigurna i uspješna metoda. Neinvazivno kirurško liječenje ima iznimne prednosti za pacijente (manja učestalost komplikacija, manji rizik od infekcija te intraoperativnog gubitka krvi, brži postoperativni oporavak). Prema navedenom laparoskopija je metoda prvog izbora u liječenju ektopičnih trudnoća.

108 - GYNA

OPERATIVNA LAPAROSKOPIJA U LIJEČENJU POSTMENOPAUZALNIH ADNEKSALNIH TVORBI

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Uvod. Razvoj operativne laparoskopske tehnike uz iskustvo vještog operatera omogućuju laparskopsko liječenje većine adneksalnih tumora kod žena u postmenopauzi. Potpuna i pažljiva dijagnostička obrada od iznimnog su značenja za odabir slučajeva za uspješno laparskopsko liječenje.
Cilj. Analizirati mogućnosti i sigurnost operativne laparoskopije u liječenju postmenopauzalnih adneksalnih tumora.
Metode. Retrospektivnom studijom su analizirani podaci 55 pacijentica s adneksalnim tumorima u postmenopauzi, koje su bile liječene operativnom laparoskopijom na Odjelu za ginekologiju i porodništvo Kliničke bolnice Osijek u razdoblju od 2000. do 2005. godine.
Preoperativno je svim pacijenticama učinjena kompletna dijagnostička obrada: anamneza, klinički pregled, transvaginalni ultrazvuk, transvaginalni CD ultrazvuk, tumorski markeri, posebno CA 125. Na temelju kriterija proizašlih iz dijagnostičke obrade laparoskopski su liječene pacijentice sa niskim rizikom za malignitet adneksalne mase. Operacijska tehnika je u 100% slučajeva bila adneksektomija. U slučaju suspektnog kontralateralnog jajnika učinjena je biopsija. Slobodna tekućina ili ispirak abdomena uzeti su za citološku analizu u svih pacijentica poštujući sve onkološke smjernice. Za vrijeme operacijskog zahvata materijal je upućivan na intraoperativnu PHD analizu.
Rezultati. U 100 % slučajeva patohistološki su nađene benigne tvorbe. Dobiveni su slijedeći patohistološki rezultati: u 42% slučajeva su nađene endometriotične ciste ovarija, u 20% serozni cistadenomi, u 17 % jednostavne ciste, u 15% dermoidna cista, u 3% fibromiomi te u 3 % mucinozni cistadenom. Borderline tumori, kao ni invazivni karcinom ovarija nije nađen ni u jednom slučaju.
Operacijsko vrijeme je prosječno iznosilo 30 minuta (20-60 min). Prosječna dob pacijentica je bila 51 godina. Nije bilo značajnijih postoperativnih komplikacija. Većina pacijentica je otpuštena iz bolnice treći postoperativni dan.
Zaključak. Studija pokazuje da je uporaba operativne laparoskopije u liječenju postmenopauzalnih adneksalnih tumora s niskim rizikom za malignost sigurna i uspješna metoda. Neinvazivno kirurško liječenje ima iznimne prednosti za pacijente (manja učestalost komplikacija, manji rizik od infekcija te intraoperativnog gubitka krvi, brži postoperativni oporavak). S obzirom na iznesene prednosti, sigurnost i brži postoperativni oporavak, laparoskopija bi trebala biti metoda prvog izbora u liječenju adneksalnih tumora u postmenopauzi, koji imaju nizak rizik malignosti.

109 - GYNA

LAPAROSKOPSKO LIJEČENJE ADNEKSALNIH TUMORA

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Uvod. Razvoj laparoskopske tehnike te svjesnost o izuzetnim prednostima neinvazivnog kirurškog liječenja kontinuirano povećava značenje operativne laparoskopije u liječenju adneksalnih tumora. Potpuna dijagnostička obrada (anamneza, klinički pregled, transvaginalni ultrazvuk, transvaginalni CD ultrazvuk, tumorski markeri, posebno CA 125) ima presudan utjecaj u odluci koji se slučajevi mogu optimalno liječiti operativnom laparoskopijom.
Cilj. Evaluirati ulogu operativne laparoskopije u liječenju adneksalnih tumora.
Metode. Retrospektivnom studijom analaizirani su medicinski podaci 611 pacijentica s adneksalnom tumorskom patologijom, koje su bile liječene operativnom laparoskopijom na Odjelu za ginekologiju i porodništvo Kliničke bolnice Osijek u razdoblju od 2000. do 2005. godine.
Rezultati. Prosječna starost pacijentica je bila 31 godina (raspon od 16 do 60 godina), veličina adnkesalnih masa u promjeru je varirala od 30 do 150 mm, dok je prosječna bila 63 mm. Operativni zahvati su prosječno trajali 40 minuta. Vrijednosti CA 125 su prosječno bile 51,7 IU/ml (raspon od 7-121 IU7ml). U 77 % slučajeva učinjena je tuomorektomija (cistektomija) sa prezervacijom jajnika, adneksektomija je učinjena u 23 % pacijentica uzimajući u obzir dob pacijentice te intraoperativni nalaz. Dobiveni su slijedeći patohistološki nalazi: u 49 % slučajeva ovarijalna endometrioza, 16 % dermoidna cista, 14 % serozni cistadenom, 6 % mucinozni cistadenom, 6% funkcionalne ciste,

4,5% luteinske ciste, 4% adenofibromi, 0,5% Borderline tumori. Nije bilo postoperativnih komplikacija, većina pacijentica je otpuštena iz bolnice u trećem postoperativnom danu.
Zaključak. Operativna laparoskopija je metoda prvog izbora u liječenju benignih adneksalnih tumora. Takav operativni zahvat omogućuje dobar operativni pristup, uzrokuje manji intraoperativni gubitak krvi, ima manje postoperativnih komplikacija, kraće je postoperativno bolničko liječenje, stoga smanjuje bolničke troškove.

135 - GYNA

LAPAROSKOPSKI TRETMAN EKTOPIČNE TRUDNOĆE NA ODJELU GINEKOLOGIJE I PORODNIŠTVA ŽUPANIJSKE BOLNICE ČAKOVEC

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U Županjskoj bolnici Čakovec laparoskopija se počela intenzivnije primjenjivati u ginekologiji krajem 1997. godine; u početku kao dijagnostička, a sticanjem iskustva i kao terapijska metoda. Da se isto postigne u krivulju učenja uključuju se specijalisti i specijalizanti praćenjem literature, nazočenjem tečajevima, simpozijima i kongresima, operiranjem i prijenosom znanja kolega iz drugih ustanova. Tako su i složenije operacije bile češće. Laparoskopski tretman se danas smatra zlatnim standardom u tretiranju ektopične trudnoće. Mi smo postigli dogovor da se svaku ektopičnu trudnoću koju će se kirurški zbrinjavati nastoji operirati laparoskopskim pristupom kao najpoželjnijim načinom za dobrobit bolesnice. Stoga smo osigurali stalnu dostupnost tima laparoskopičara. Krivulju naučenog najbolje smo pratili usporedbom operiranja ektopične trudnoće klasično - laparotomijom i laparoskopskim pristupom. Nekoliko ektopičnih trudnoća tretirali smo konzervativno u skladu s postupnikom. U ranijim godinama većinom se operiralo klasično, a kako je krivulja učenja u laparoskopiji rasla, posebice u posljednje 4 godine nakon potvrđene dijagnoze i/ili sumnje na ektopičnu trudnoću, operacija je bila samo laparoskopskim načinom. Samo jednom je laparoskopija završila prelazom na laparotomiju zbog komplikacije - lezije mokraćnog mjehura škaricama za vrijeme prepariranja priraslica i anatomski promjenjene pozicije mokraćnog mjehura kod prethodne laparotomije. U razdoblju od 9 godina, to jest od listopada 1997. godine do listopada 2006. godine operirali smo ukupno 91 ektopičnu trudnoću. Laparoskopski smo operirali 49 bolesnica. Broj laparoskopskih operacija ektopične trudnoće je svakom godinom bio veći, tako da je laparoskopija bila isključivo rađena od 2002. do 2006. godine. Ukupno smo učinili 42 laparotomije, a najviše od 1997. do 1999. godine, ponajviše radi neiskustva i samih početaka uvođenja metoda endoskopske kirurgije. U kasnijem razdoblju značajno smo smanjili broj laparotomija zbog ektopične trudnoće. Prilikom laparoskopije je najčešće bila učinjena salpingektomija (42), salpingotomija i evakuacija (2), adneksektomija (1), resekcija jajnika (2) te resekcija kornuisthmičnog dijela uterusa (2). Kada je bilo potrebno u istom aktu učinila se i adhezioliza. Vlastito iskustvo laparoskopkog operiranja ektopičnog sijela trudnoće slaže se s iskustvom drugih ginekologa - kirurga i pokazuje bolje vizualiziranje operativnog polja, skraćenje vremena operiranja kod uigranog tima, minimalni intraoperativni gubitak krvi, manju potrebitost postoperativne analgezije, skraćenje broja dana hospitalizacije sa 7.3 na 3.5 dana., te brži oporavak bolesnice i vraćanje u svakodnevnicu života i rada.

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LAPAROSKOPSKE OPERACIJE U GINEKOLOGIJI I RAZLOZI KONVERZIJE U ŽUPANIJSKOJ BOLNICI ČAKOVEC

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Laparoskopske operacije u ginekologiji Županijske bolnice Čakovec intenzivnije su se počele izvoditi krajem 1997. godine, prihvaćanjem laparoskopske metode i od strane ginekologa - klasičnih operatera te rastom krivulje učenja i kompletiranjem opreme. Kako se povećava iskustvo u endoskopskoj kirurgiji kod sve više ginekologa, pristupa se sve složenijim operacijama. Ukupno smo učinili 268 laparoskopija; od listopada 1997. godine do listopada 2006. godine. Od toga je 15 laparoskopija završilo konverzijom u otvorenu operaciju - laparotomiju. Dijagnostičkih laparoskopija je bilo 18: zbog dispareunije, kronične boli u maloj zdjelici, nepotvrđene ektopične trudnoće, i jednom zbog

paraneoplastičnog sindroma. Endoskopski smo operirali 49 ektopičnih trudnoća, a operacije su najčešće završile salpingektomijom. Endometriozu različitog sijela smo našli u 26 bolesnica, a završilo se ekscizijom endometriotičnog žarišta, i rjeđe koagulacijom istog. Učinili smo 40 sterilizacija modifikacijom sa metalnim "kvačicama" ili koagulacijom jajovoda. Zbog steriliteta smo operirali 19 bolesnica, i učinili kod svake hidroturbaciju, te po potrebi adheziolizu i neostomatoplastiku. U 5 bolesnica učinjen je i drilling jajnika. U 23 bolesnice učinili smo adheziolizu kod kojih je bilo stanje kroničnog adneksitisa uz priraslice u maloj zdjelici i/ili ostalim dijelovima trbuha zbog prethodne laparotomije. U 74 bolesnice našli smo solidan ili cističan tumor na adneksima, posebice jajniku (jednostavnu cistu, dermoidnu cistu, saktosalpinks ili paraadneksalnu cistu). Prema procjeni operacija je završila cistektomijom, ovarijektomijom, salpingektomijom ili adneksektomijom). U 3 bolesnice učinili smo miomektomiju manjih subseroznih mioma. Konverzijom u laparotomiju pristupilo se kod 15 bolesnica što je iznosilo 5.5 %. Općeniti razlozi su bili u procjeni da nastavak laparoskopskim načinom može povisiti morbiditet bolesnice, a neizravno i mortalitet. U jednom slučaju se procjenilo da treba učiniti mikrokirušku operaciju zbog dugogodišnjeg steriliteta. Jednom se radilo o ektopičnoj trudnoći kornuistmičnog dijela uterusa i opasnosti od masivnijeg krvarenja. Kod jedne laparoskopije je došlo do komplikacije - lezije mokraćnog mjehura škaricama zbog priraslica i promjenjene topografske anatomije uslijed prethodne laparotomije. Kod jedne bolesnice se radilo o proširenoj endometriozi posebice rektovaginalnog septuma te se operacija nastavila klasično. U 11 slučajeva se nije moglo tehnički izvoditi laparoskopiju nakon uočavanja multiplih priraslica u maloj zdjelici i ostalim regijama trbuha i moguće lezije okolnih trbušnih organa. Postotak konverzija se nije razlikovao od uobičajenog postotka koji se iznosi od 2 do 5 %. Vjerojatno je taj postotak bio nešto viši zbog neiskustva i razine tehničke opremljenosti, a konverzije su bile najčešće u početku uhodavanja u postupcima endoskopske kirurgije na našem odjelu. Stoga stalnim podizanjem krivulje učenja i tehničkim opremanjem, nastojimo proširiti dijapazon laparoskopskih operacija i težimo smanjenju postupaka konverzije.

153 - GYNA

TRETMAN PSEUDOCISTE DOUGLASOVOG PROSTORA LAPAROSKOPSKIM PRISTUPOM.

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Prikazali smo laparoskopski tretman rješavanja pseudociste u području Douglasovog prostora s lijeve strane a nakon operacijskog zahvata gdje je bolesnici dvije godine prije ovog zahvata učinjena vaginalna histerektomija sa obostranom adneksektomijom, a radi recidivirajućih menometroragija, complex hyperplasie endometrija te tuboovarijskog apscesa lijevo sa saktosalpingsom desno. Bolesnica opisuje bolove i otežano mokrenje sa učestalim uroinfekcijama u više navrata liječenim po antibiogramu, što datira u natrag tri mjeseca pred operacijski zahvat. Klinički se u Douglasu palapcijski verificira osjetljiva rezistencija koja se verificira i UZV-om, bez detektabilnog protoka, u vidu cističnog tumora, tankih stijenki i bistrog sadržaja, a ista mjeri 4.5 x 3 cm. Obzirom na navedeno učini se laparoskopski operacijski zahvat, gdje se na početku prikaže operacijsko polje, sa stanjem nakon histerektomije sa obostranom adneksektomijom, gdje se našlo nešto priraslica sa okolnim peritoneumom i crijevima, a na mjestu prethodno opisanog operacijskog zahvata. Ispod bataljka lig. rotunda lijevo prema vagini priljubljena prije opisana tvorba, u intimnom kontaktu sa lateralnom stijenkom zdjelišta, medijalno sa lateralnom stijenkom debelog crijeva a straga prema mjehuru i distalnim dijelom uretera. Uzet aspirat iz Douglasovog prostora za citodijagnostiku i mikrobiološku analizu. Prikaže se panorama Douglasovog prostora te velike krvne žile sa ureterima obostrano. Ostali organi trbušne šupljine bez patološkog supstrata. Obzirom na nalaz i smetnje otklone se i grube priraslice čime se mobilizira sigma. Dalje se koagulira ligamentum rotundum lijevo, uz bataljak forniksa rodnice te presijeca i tako se omogučava pristup opisanoj pseudocisti, koja se ljušti preko uretera, kojeg u tijesnom kontaktu komprimira. Preparira se ureter lijevo i oslobodi ga se u gornjoj polovici: Nađe se mjesto gdje uterina arerija križa ureter te se presiječe nakon koagulacije arterija uterina, a manje krvarenje nakon toga se razrješava koagulacijom. Slijedi prepariranje krova uretera sa koaguliranjem i presijecanjem tkiva iznad uretera, te se tako u cijelosti lijevi ureter mobilizira, a opisana pseudocista se in toto odstrani u rukavici. Dio pseudociste šalje se na hitnu PHD analizu, a intraoperacijski patolog javlja da ne nalazi znakova maligniteta. Uzet i II. aspirat iz Douglasa za citodijagnostiku.
PHD nalaz govori za pseudocistu.
Citološki nalaz aspirata iz Dougasovog prostora odgovara kroničnoj upali. Mikrobiološki nalaz aspirata iz Douglasovog prostora: sterilan. Poslijeoperacijski tijek protekao je uredno. Bolesnica je šest mjeseci po operacijskom zahvatu dobro, bez kliničkih smetnji i uroinfekcija.

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LAPAROSKOPSKO LIJEČENJE INTRAMURALNIH MIOMA

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Laparoskopski je operirano 296 pacijentica zbog intramuralnog mioma. Promjer enukleiranih mioma kretao se između 2 i 12 cm. Stijenka maternice rekonstruirana je na dva načina:
- u 231 pacijentica primjenjeni su pojedinačni šavi postavljeni na modificiran Kecksteinov način: "blizu-daleko-daleko-blizu"
- u 65 pacijentica za rekonstrukciju stijenke maternice primijenjena je tehnika šivanja produžnim spiralnim uspinjujućim šavom.
Nije bilo razlike u veličini odstranjenih mioma niti u trajanju zahvata.
Niti u jednoj grupi pacijentica nisu zabilježene ozbiljne intraoperacijske, rane ili kasne postoperacijske komplikacije.
U tri slučaja bilo je potrebno uraditi konverziju u laparotomiju.
Laparoskopska miomektomija je učinkovita i srazmjerno sigurna metoda. U iskusnog operatera učestalost konverzija u laparotomiju i komplikacija je prihvatljiva. Rizik rupture maternice tijekom trudnoće i poroda potrebno je još utvrditi.

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LAPAROSKOPSKI OPERACIJSKI ZAHVATI U GINEKOLOGIJI

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Laparoskopija danas predstavlja nezaobilazno oruđe u rukama ginekologa, a udio laparoskopskih operativnih zahvata u odnosu na standardne operativne pristupe u ginekologiji - laparotomijski i vaginalni razlikuju se između pojedinih centara sukladno tehničkoj opremljenosti i osposobljenosti operativnog tima. Laparoskopija kao kirurški pristup u ginekologiji svakodnevno proširuje indikacijsko područje s istovremenim uvođenjem novih tehnika. Primjenu laparoskopije u ginekologiji možemo podijeliti na dvije velike skupine, prvu dijagnostičku i drugu terapijski. U dijagnostičkoj skupini laparoskopija ima važnu ulogu u otkrivanju i potvrđivanju pojedinih patoloških stanja koja se ne mogu drugim metodama dokazati uključujući mogućnost uzimanja uzoraka za patohistološku analizu. Najčešće indikacije za primjenu dijagnostičke laparoskopije uključuje ispitivanje neplodnosti i tzv. second look laparoskopija kod raka jajnika. Operativnu laparoskopiju možemo podijeliti na tehnike koje se primjenjuju u benignim stanjima i malignim bolestima. Od tehnika koje se primjenjuju u benignim stanjima na raspolaganju su konzervativne, ablativne i rekonstrukcijske metode. Konzervativne operativne tehnike primjenjuju se u liječenju tubarne trudnoće primjenom salpigotomije i evakuacije sadržaja jajovoda uz očuvanje samoga jajovoda, cistektomije uz odstranjenju cistične tvorbe unutar jajnika i očuvanju većeg ili manjeg dijela jajnika, miomektomije uz odstranjenje mioma (jednog ili više) uz očuvanje uterusa. Ablativne metode mogu se rabiti samostalno ili udružene s drugim kirurškim pristupom, najčešće vaginalnim. Laparoskopskom tehnikom mogu se odstraniti svi pojedinačno ili skupno unutrašnji genitalni organi. Histerektomija, kao jedan od izuzetno čestih operativnih zahvata danas se može izvoditi sukladno tehničkoj mogućnosti isključivo laparoskopski odnosno laparotomijski, potpomognuto laparoskopijom uz vaginalni dio operativnog zahvata ili isključivo vaginalnim pristupom. Izbor ovisi o dijagnozi, veličini uterusa, istovremenom nalazu na adneksima, stanju bolesnice i tehničkoj osposobljenosti operativnog tima. Rekonstruktivni zahvati u ginekologiji prvenstveno imaju ulogu u vraćanju anatomskih odnosa uz eventualnu primjenu ugradbenih materijala ili bez njih.
Drugo veliko poglavlje koje svakodnevno sve više prelazi u domenu laparoskopije predstavlja ginekološka onkologija. Laparoskopske tehnike se mogu primijeniti u određenom broju bolesnica s rakom vrata maternice, endometrija jajovoda i jajnika. Laparoskopska limfadenektomija zdjelice i paraaortnog područja uz primjenu laparoskopskih tehnika kod radikalne histerektomije, omentektomije i citoredukcije danas predstavljaju moguće tehničke opcije u izabranim bolesnicama s prihvatljivim intraoperativnim komplikacijama i s jednakomjernom stopom izlječenja uz brži postoperativni oporavak.

189 - GYNA

RAZVOJ LAPAROSKOPSKI ASISTIRANE VAGINALNE HISTEREKTOMIJE U OB ZADAR

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Cilj rada bio je prikazati razvoj laparoskopski asistirane vaginalne histerektomije u OB Zadar kroz sedmogodišnje razdoblje, a u odnosu na broj učinjenih operacija, vrijeme trajanja operacija, vrijeme hospitalizacije, indikacije i komplikacije.
U sedmogodišnjem razdoblju (1999-listopad 2006.g) učinjeno je 153 LAVH -a.Broj operacija u posljednjoj godini je dvostruko veći nego u prve četiri godine zajedno.
Većinom je rađen LAVH koji uključuje: rezanje lig.infundibulopelvica(ovarii propria),lig.rotunda,plice vesicoterine i rectouterine,rezanje lig.sacrouterina i stražnju kolpotomiju.
Najčešća indikacija za operaciju bio je miom uterusa. Slijedi CIN III/CIS i malignomi.
Raspon trajanja operacije bio je od 40 do 240 minuta, s time da je posljednje godine trajanje operacije za 40 % kraće(97 min) od onog u prvoj godini(165 min).
Na ukupnom broju bilo je 20(13 %) komplikacija. Najčešća je bila infekcija (5,2 %) (uglavnom blaga-na zaraslici) i krvarenje(5,2 %).
Broj LAVH se stalno povećava dok broj laparotomija pada.Ako se broju LAVH doda broj vaginalnih operacija onda proizlazi da je ukupan broj tih operacija u posljednje tri godine veći od broja laparotomija.
Prema iskustvu autora LAVH može značajno smanjiti broj laparotomija,jer je manje traumatična metoda,znatno smanjuje vrijeme operacije i hospitalizacije te omogućuje znatno brže uključenje u normalan život.

190 - GYNA

LAPAROSKOPSKA INFRAKOLIČNA OMENTEKTOMIJA ULTRAZVUČNIM NOŽEM : PRIKAZ SLUČAJA

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Pacijentica M.K. rođ. 1950.g u Zadru, zaprimljena na odjel ginekologije nekon prethodnog boravka u kojem je učinjena laparoskopska desnostrana adnekektomija radi cistične tvorbe u menopauzi.
PHD nalaz: granični serozni tumor jajnika
U drugom boravku učnjiena endoskopska procjena proširenosti bolesti.
REOPERACIJA:
- LAVH cum adnexectomiam lat.sin.
- Lymphadenectomia pelvica l.dex.et paraaortalis partialis
- Omentectomia infracolica
- Biopsio peritonei
Kao gore napisano učinjena je i endoskopska omentektomija uz pomoć ultrazvučnog noža. Vrijeme trajanja infrakolične omentektomije je oko 15 minuta.Ometum je odstranjen kroz rodnicu.

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LAPAROSCOPIC OOPHORECTOMY IN A 3 WEEK OLD NEWBORN AFTER INTRAUTERINE TORSION AND AUTOAMPUTATION

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Objectives: The aim of the presentation is to introduce a new surgical approach and advocate laparoscopy as reliable, safe, and efficient method in rare gynecological pathology in newborn.
Methods: Three weeks old newborn, 56cm long, and 4,6 kilogram in weight underwent laparoscopic removal of a 5cm

Ø hemorrhagic ovarian tumor. Laboratory findings ultrasound, Doppler, and CT scan suggest a rare complication of intrauterine ovarian torsion, an autoamputation of ovary. The authors present the laparoscopic cyst removal with emphasis on the simplicity of technique, cyst division, and transumbilical port evacuation. The boundaries of neonatal endoscopy are important factor concerning a volume of operative field and a limited abdominal compliance.
Results: During 26 min of endotracheal anesthesia the procedure was performed, without any major intraoperative excess; bleeding, rupture or leakage. Three port technique and the adjusted instrumentation were used. The identification of all structures ware crucial. The presentation of a blind adnexal stump proved the autoamputation, the condition of the contralateral ovary was verified, the cyst was freed of the cyst bed, suctioned to fit 10mm size of umbilical port and removed.
Conclusion: Laparoscopic oophorectomy can be successfully accomplished even in newborns. It is technically feasible procedure, enables safe removal of the cyst, and has the benefits of excellent visualization of the entire lower abdomen and pelvis including the contralateral ovary, rapid postoperative recovery due to low operative stress, and superior cosmetic result.

192 - GYNA

PRIKAZ ENDOSKOPSKOG ODSTRANJENJA ATRETIČNOG ROGA UTERUSA KOD MLADE PACIJENTICE SA KRONIČNOM DISMENOREJOM

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Pacijentica K.D. rođ.1989.g u Zadru, na odjel ginekologije zaprimljena zbog izrazito bolne menstruacije. Iz anamneze menarche sa 13 g života, menstruacije uvijek bolne.U zadnja dva mjeseca od strane svog ginekologa ordiniran Cilest.
Ginekološki nalaz: Himen prohodan za menstrualnu krv. Trbuh mekan bez defansa.
Digitorektalni pregled: Uterus malen i pravilan,lagano bolan pri palpaciji. Lijeva adneksa uredna. Desno uz uterus palpira se rezistencija nekoliko centimetara u promjeru, izrazito bolna na palpaciju.
UZV(transrektalno): U maloj zdjelici se prikazuje jedan korpus uterusa usmjeren više prema lijevo sa tankim endometrijem(odgovara fazi ciklusa) i urednim cerviksom. Desno uz uterus prikazuje se vjerojatno atretični desni rog s centralnim ehogenim odjekom(endometrij), ali bez cerviksa i vjerojatno bez komunikacije s lijevim uterusom ili vaginom.Jajnici obostrano uredni.Nema slobodne tekućine.
Laboratorijski nalazi uredni.Internistički status uredan. UZV abdomena i bubrega uredan. RTG torakalne i lumbalne kralješnice uredan.
S obzirom na osnovanu sumnju da su bolovi uzrokovani atretičnim (nekomunikacijskim) rogom uterusa pristupi se dijagnostičkoj laparoskopiji i histeroskopiji.
Histeroskopski nalaz: Cavum prazan,uzak,izduljen prema lijevo sa samo jednim ušćem jajovoda.
Intraoperativni nalaz: Uterus podijeljen u dva dijela. Lijevi dio oblika unicornisa. Desni dio uterusa zaobljen, nije u kontaktu s lijevim uterusom i cerviksom. Jajnici i jajovodi obostrano uredne veličine i oblika.Ostali nalaz u trbušnoj šupljini uredan.Ubrizgano modrilo prolazi kroz lijevi jajovod u abdominalnu šupljinu,dok u desni jajovod niti ne ulazi.
Pristupi se laproskopskom odstranjenju desnog jajovoda i atretičnog roga uterusa uz pomoć ultrazvučnog noža.
Postoperativni tijek uredan. Pacijentica se drugog postoperativnog dana otpusti kući.

210 - GYNA

ENDOSKOPSKA EVALUACIJA ULTRAZVUKA U GINEKOLOGIJI

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Cilj ove studije je odrediti vrijednost prijeoperacijskog obojenog doplera i 3 D ultrazvuka u postvljanju dijagnoze za slučajeve adneksalnih tumora .
Materijal i metode: U studiju je bilo uključeno 257 bolesnica operiranih zbog adneksalnih tumora.U svih boolesnica je na dan prije laparoskopije učinjena vaginosonografija sa obojenim doplerom i za sve suspektne tumore 3D ultrazvučna evaluacija.

Rezultati: Od svih bolesnica njih 235 je imalo benignu bolest jajnika a 19 bolesnica je imalo malignu bolest jajnika.U dva slučaja maligne bolesti jajnika obojenim doplerom mnije postavljena dijagnoza maligne bolesti jajnika i u jednom slučaju od ta dva niti na 3 D ultrazvuku nije postavljena dijagnoiza maligne bolesti jajnika.Ostali nalazi su bili u dobroj korelaciji sa ultrazvučnim nalazima.
Zaključak: Najvažnija stvar u prijeoperacijskoj obradi bolesnice prije endoiskopske kirurgije na adneksima je na dan prije operacije vaginosonografski pregled obojenim doplerom i pomogučnosti gdje god je postavljena indikacija 3D ultrazvučni pregled u kombinaciji sa Ca 125 tumorskim biljegom.To omogučava preciznu prijeoperacijsku dijagnozu i u skladu sa dijagnozom primjenu najadekvatnije operacijske tehnike po "safe mode " principima kako za osnovnu bolest tako i za bolesnicu.

211 - GYNA

JEDNAKOTLAČNA LAPAROSKOPIJA

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Laparoskopija je postala standardna metoda u ginekološkoj kirurgiji za večinu oboljenja.
Laparoskopija sa primjenom pneumoperitoneja ima neke nedostatje u odnosu na jednakotlačnu laparoskopiju osobito za bolesnice u kojih je kompromitiran kardiopulmonalni sustav.
Od kada je u primjeni postala je jako dobra alternativa laparoskopiji sa primjenom pneumoperitoneja ,što osobito važi za kardiopulmonalno kompromitirane bolesnice, kao i za bolesnice u kojih bi primjena pneumoperitoneja mogla pogoršati osnovnu bolest zbog koje je indicirana laparoskopija.
Ovim radom mi želimo prikazati naša iskustav u primjeni jednakotlačne laparoskopije od 1997 godine do danas.
Mi smo koristili ovakovu operacijsku tehniku kod sljedečih stanja:
- Kompromitiran kardiopulmonarni sustav.
- Adneksalne mase.
- Sterilitet/infertilitet.

Kontraindikacije za ovu operacijsku tehniku su bile iste kao i za "standardnu laparoskopiju" visoki indeks tjelesne mase i maligna bolest jajnika.
Sve su operacije izvedene u općoj endotrahealnoj anesteziji uz primjenu laparolif sustava za podizanje trbušne stijenke (Origin laparolift sistem)
1. Sa primjenom laparofan-a
2. Za slučaj intraabdominalnih adhezija balon .

Kod 19 operacija koristili smo "klasične" kirurške instrumente specijalno dizajnirane za ovu operacijsku tehniku.
U ostalim operacijama koristili smo instrumente za "standardnu laparoskopiju".
Izveli smo slijedeče operacije:
- 15 unilateralnih oophorektomija
- 11 cistektomija
- 06 LAVH
- 12 adhezioliza
- 2 apendektomije
- 17 dijagnostičkih laparoskopija.

Ova operacijska tehnika je vrlo prihvatljiva.
Laparolift sistem osigurava sigurno i efikasno podizanje trbušne stijenke.
Poslijeoperacijski oporavak je manje bolan obzirom da nema boli izazvane prisustvom co2 u trbušnoj šupljini.
Sa "cost -benefit" stajališta metoda je jeftinija jer se koriste konvencionalni instrumenti koji se mogu resterilizirati.
Kirurzi naviknuti na operacije na otvorenom abdomenu zbog takovih intrumenata mogu prije i lakše usvojiti operacijsku tehniku.

221 - GYNA

TOTAL LAPAROSCOPIC HYSTERECTOMY

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Objective of this work is to show results of laparoscopic hysterectomies performed at Ob/Gyn Department General Hospital Zabok, Croatia from 1994. - 2005.
Introduction
First laparoscopic hysterectomy was performed in 1988. In our department we started to perform laparoscopic hysterectomies in 1994. Hysterectomy is most commonly performed procedure in gynecology. Laparoscopic hysterectomy is an alternative to abdominal hysterectomy. Most hysterectomies requiring the abdominal approach can be done laparoscopically, with the patient benefiting from avoidance to of painful abdominal incision, reduced hospital stay and recovery and low rate of infection and ileus.
Patients and methods
From 1994. - 2005. at our department 370 laparoscopic hysterectomies for benign indications were performed. There were 332 TLH and 38 LAVH. The most common indications was fibroid uterus complicated with AUB or lower abdominal pain in 245 cases, stress urinary incontinence in 36 case (in most cases intraperitoneal laparoscopic Burch colposuspension was performed as joined procedure), AUB in 47 cases, adnexal mass in 42 cases, etc. In all cases we used 4 abdominal entry ports. Primary trocar with optics was introduced paraumbilicaly, two 5 mm ports in lower quadrants, and one 10 mm port in upper left quadrant. In all cases Clarrmon Ferrand uterus manipulator was used for better exposure of structures. Haemostasis was achieved with bipolar coagulation, in some cases with chronic parametritis, the suture to lateral parametria was placed, and in 8 cases the metal clip for uterine artery was aplied. Vaginal vault was closed laparoscopically with McCall culdoplasty using two O-Vycril sutures tied extracorporeally.
Results
Complications occurred in 7.4 % of cases, there were 4 bladder injuries, 8 ureter injuries, and 3 intestinal injuries (two mechanical trauma of large intestine, and one electrical trauma to the small intestine). There were no injuries to large blood vessels. Significant blood loss occurred in 9 patients, and blood transfusion was given intraoperativelly or in the few postoperative days. Average hospital stay was 6 days. Overall average operative time was 210 minutes (3h 30min), and operative time in 2005. only was 145 min (2h 25 min). The average weight of the removed uterus was 407 grams (range 80 - 2700 grams) .
Conclusion
Since laparoscopic hysterectomy become routine procedure at our department in the last few years, there has been significant decrease in the number of abdominal hysterectomies performed. In the same time the number of vaginal hysterectomies remained constant. This shows that laparoscopic hysterectomy is alternative to abdominal hysterectomy. Hospital stay was prolonged not because of patient condition, but due to administrative reasons (shorter hospital stay means less money for the hospital). Ureteral injuries occurred mostly in the first few years since we started performing this procedure. We believe that the visualization of ureter is the crucial step of the procedure. Bipolar coagulation of infundibulopelvic ligament, and uterine vessels appears to be safe method of hemostasis.

222 - GYNA

THE ROLE OF LAPAROSCOPY IN GYNECOLOGICAL ONCOLOGY

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There are several described ways to perform radical hysterectomy. Abdominal approach has remained the only widely accepted approach to radical hysterectomy and lymphadenectomy. Dargent was the first to describe endoscopic operation in the field of gynecological endoscopy in 1987. He performed extra peritoneal pelvic lymphadenectomy. The introduction o the lymphadenectomy in the gynecological endoscopy has had two consequences: the revival of radical vaginal hysterectomy and questioning of the dominant role of abdominal surgery. Laparoscopic lymphadenectomy added radicalism to classic Shauta operation, which is now called coelio Shauta.
During the 1990s the role of pelvic and latterly para aortic lymphadenectomy has been extended and is now an integral part of best practice Gynecological Oncology Departments. Dargent has demonstrated the role of both extra

peritoneal and trans peritoneal dissection of the pelvic and para aortic lymph nodes. All these authors have demonstrated the feasibility of the technique and the ability to achieve high node retrieval levels in their practice
The role of laparoscopic surgery in radical hysterectomy is not yet well established. Laparoscopic modified radical hysterectomy is acceptable if it is identical to open abdominal operation. Combination of laparoscopic lymphadenectomy with radical vaginal surgery (coelio Shauta) is today the acceptable procedure in the treatment of cervical cancer. Combination of "two minimal incisions", could be thus be the most logical technique for the surgical therapy of gynecological cancer in the future. In that way, laparotomy is avoided, and the operations are still radical enough.

ENDOSKOPSKI ZAHVATI U UROLOGIJI

ENDOSCOPIC PROCEDURES IN UROLOGY

80 - UROL

LAPAROSKOPSKE OPERACIJE TUMORA BUBREGA

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Cilj: prikazani su naše iskustvo i rezultati laparoskopskih operacija tumora bubrega.
Materijal i metode: Na odjelu za urologiju Opće bolnice Zadar prvu laparoskopsku radikalnu nefrektomiju smo izveli 2003. godine. Do sada smo na ovaj način operirali 19 bolesnika. Iako postoji transperitonealni i retroperitonealni pristup, sve smo laparoskopske radikalne nefrektomije izveli transperitonealnim pristupom zbog lakše mogućnosti ranog podvezivanja krvnih žila bubrega kao i izvođenja limfadenektomije. Indikacija za operaciju je tumor manji od 8 cm, u stadiju T1 ili T2 i N0. Do sada smo izveli i 12 laparoskopskih parcijalnih nefrektomija zbog tumora bubrega. Kod ove operacije koristimo i retroperitonelani i transperitonealni pristup, ovisno o položaju tumora. Indikacija za parcijalnu nefrektomiju je tumor bubrega manji od 4 cm (T1 NO stadij) i periferno smješten tumor.
Rezultati: Prosječno vrijeme trajanja laparoskopske radikalne nefrektomije bilo je 179 (160-260) minuta. Transfuzija krvi bila je potrebna kod troje bolesnika. Prosječno trajanje hospitalizacije bilo je 7 (6-11) dana. Prosječno trajanje analgezije bilo je 1,7 (0-3) dana. Kod 1 bolesnika morali smo učiniti konverziju u otvoreni zahvat zbog ozljede renalne vene. Prilikom laparoskopske parcijalne nefrektomije, prosječno vrijeme trajanja operacije bilo je 113 minuta. Kod jednog bolesnika smo učinili konverziju u otvoreni zahvat zbog pozitivnog ruba (intraoperativni PH nalaz tumora na resekcijskom rubu). Transfuzija krvi nije bila potrebna niti kod jednog bolesnika. Prosječno trajanje hospitalizacija bilo je 6 dana. Prosječno trajanje analgezije bilo je 1 dan.
Zaključak: Naši rezultati kod laparoskopskih operacija tumora bubrega su jednaki rezultatima otvorenih operacija uz poznate prednosti laparoskopije (manja postoperativna bol, brži oporavak, kraća hospitalizacija).

81 - UROL

LAPAROSKOPSKA PIJELOPLASTIKA

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Cilj: prikazujemo naše iskustvo i početne rezultate u izvođenju laparoskopske pijeloplastike.
Materijal i metode: U razdoblju od travnja 2004.g. do rujna 2006.g. ovom metodom operirali smo 13 bolesnika. Indikacija za operaciju bila je stenoza pijeloureteralnog segmenta: kod 2 bolesnika razlog stenoze bila je aberantna krvna žila za donji pol bubrega. Kod 1 bolesnika operaciju smo izveli retroperitonealnim pristupom, dok smo kod ostalih koristili transperitonealni pristup. Kod 12 bolesnika smo napravili Anderson-Hynes pijeloplastiku, a kod jednog Y-V pijeloplastiku. Kod jednog bolesnika smo uz pijeloplastiku izveli i pijelolitotomiju. Kod svih bolesnika smo postavili "double J" protezu koju smo odstranili nakon 30 dana.
Rezultati: Prosječno vrijeme trajanja operacije bilo je 185 minuta. Prosječno trajanje hospitalizacije bilo je 7 dana. Prosječno trajanje analgezije bilo je 3 dana. Prilikom laparoskopske pijeloplastike kod 1 bolesnika smo morali napraviti konverziju u otvoreni zahvat. Kontrolni ultrazvučni pregled kod svih bolesnika smo napravili nakon 1 i nakon 3 mjeseca sa zadovoljavajućim rezultatima (hidronefroze nije bilo ili je bila znatno smanjena u odnosu na stanje prije zahvata).
Zaključak: rezultati prvih operacija su sasvim u skladu sa rezultatima iz stručne literature.

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ENDOSCOPIC TRANSPERITONEAL ADRENALECTOMY

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Objective: First laparascopic adrenalectomy was reported in 1992. The safety and efficacy of laparascopic approach to adrenalectomy have been demonstrated and laparascopic adrenalectomy is becoming the surgical technique of choice for removal of diseased adrenal gland. The aim of the study was to analyze our experience with transperitoneal laparascopic adrenalectomy.
Patients and Methods: From February 2004 to October 2006 twenty-six minimal invasive adrenalectomies were performed. For the left side 3 abdominal trocars and for the right side 4 abdominal trocars were inserted after the pneumoperitoneum was created. Ultrasonic dissection was used providing hemostasis during the dissection of the periadrenal tissue. Clips were used for the main arterial and venous supply.
Results: Median age in 26 patients was 48,5 years (range 31-69 years). Median hemoglobin before operation was 138,5 g/L (range 107-162 g/L) and after procedure 116,5 g/L (range 86-153 g/L). There were 16 tumors on the right side and 10 on the left side. Two patients with pheocromocytoma received postoperatively 2 blood units. Median operating time was 195 min (range 100-305 min). There were no major postoperative complications. The median hospital stay was 4,5 days (range 2-8 days). Median tumor size was 2 cm (range2-6 cm). Histopatologic findings were: Conn's adenoma (n=12), pheocromocytoma (n=5), Cushing syndrome (n=3), incidentaloma (n=4), mielolipoma (n=1) and carcinoma glandule suprarenalis (1). There were two conversions to open surgery due to large tumor and adhesions in the operating field.
Conclusion: The laparascopic transperitoneal adrenalectomy offers a decrease in post-operative pain, more rapid recovery and shorter length of hospital stay.

79 - UROL

LAPAROSKOPSKI OPERACIJSKI ZAHVATI NA ORGANIMA ZDJELICE, LAPAROSKOPSKA RADIKALNA PROSTATEKTOMIJA

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Uvod: laparoskopski operativni pristup se sve češće i kod sve većeg broja ljudi primjenjuje prilikom operacije karcinoma prostate. Ovdje opisujemo tehnike i rezultate laparaskopskih radikalnih prostatektomija učinjenih na našem odjelu.
Materijal i metode: od listopada 2003.g. do kolovoza 2006.g. laparoskopska radikalna prostatektomija je učinjena kod 39 bolesnika s lokaliziranim karcinomom prostate. Prvih 28 bolesnika smo operirali Montsouris transabdominalnom tehnikom. Unazad zadnjih 6 mjeseci operiramo ekstraperitonealnim pristupom i na taj smo način operirali 11 bolesnika. Indikacija za operaciju su lokalizirani karcinom prostate (T1-T2 N0 M0 stadij) i dob bolesnika ispod 71g..
Rezultati: prosječno vrijeme trajanja operacije transabdominalnim pristupom bilo je 298 minuta, a kod zadnjih 10 istim pristupom prosječno 267 minuta. Ekstraperitonealnim pristupom operacije su trajale prosječno 193 minute. Sveukupno, kod 3 bolesnika smo učinili konverziju u otvoreni zahvat: u jednom slučaju zbog većeg krvarenja, u drugom zbog ozljede uretera, a u trećem zbog ozljede rektuma.
Zaključak: naša iskustva govore da je laparoskopska radikalna prostatektomija siguran i minimalno invazivan način liječenja kod bolesnika s karcinomom prostate. Vidljivo je da se s povećanjem iskustva skraćuje trajanje operacija i smanjuje učestalost komplikacija. Rezultati kod operacija transabdominalnim pristupom su približno jednaki rezultatima kod otvorene radikalne prostatektomije, a prednosti su manja postoperativna bol, brži oporavak i kraći boravak u bolnici.

114 - UROL

TRANSURETRALNA INCIZIJA VRATA U ŽENA

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Cilj: Prikaz dijagnostike, liječenja i poslijeoperacijskih rezultata serije žena s opstrukcijom na razini vrata mokrćnoga mjehura.
Materijal i metode: Od 2000. - 2006. na Klinici za urologiju Kliničkoga bolničkoga centra u Rijeci 24 bolesnice liječene su zbog subvezikalne opstrukcije na razini vrata mokraćnoga mjehura. Uključene su kako bolesnice s primarnom opstrukcijom, tako i one s neurogenom lezijom funkcije mokraćnoga mjehura. U djagnostici smo uz anamnezu najveću važnost pridavali nalazu uroflowmetrije te nalazu ostatnoga urina kod ultrazvučnoga pregleda. Kod svih je bolesnica učinjena i kalibraža uretre, u pravilu s urednim nalazima. Mjerenje tlakova u uretri nismo provodili. Kod većine bolesnica dijagnoza subvezikalne opstrukcije na razini vrata mokraćnoga mjehura postavljena je isključivanjem drugih mogućih uzroka mokraćne opstrukcije. Svim je bolesnicama učinjena transuretralna incizija vrata mokraćnoga mjehura. U četiri bolesnice operacija je ponovljena još po jednom.
Rezultati: Od 2000. do 2006. liječene su zbog opstrukcije na razini vrata mokraćnoga mjehura 24 bolesnice dobi od 21 do 78 godina. U četiri bolesnice subvezikalna opstrukcija javila se je u okviru kliničke slike neurogene lezije funkcije mokraćnoga mjehura, u jedne bolesnice uz dijastazu simfize bez ekstrofije te u jedne bolesnice nakon radikalne cistektomije i konstrukcije neovesice po Hautmannu. . Bolesnice su se u pravilu žalile na otežano mokrenje, s frekvencijom od 5-15 puta i nokturijom od 0-7 puta. Vrijednosti rezidualnoga urina kretale su se od 0-500 ml. U tri bolesnice postojala je kompletna retencija urina. Vezikoureteralni refluks nije nađen u niti jedne pacijentice. U 14 bolesnica pokušano je prije operacije liječenje blokatorima alfa receptora. Transuretralna incizija vrata mokraćnoga mjehura na dva mjesta, kod 5 i 7 sati, učinjena je svim bolesnicama. U 4 bolesnice incizija je morala biti ponovljena, u 2 bolesnice s uspjehom, u preostale 2 pacijentice nije bilo poboljšanja. Bolesnice smo kontrolirali od 1-6 godina. Kontrolni pregledi uključivali su anamnezu i mjerenje protoka urina. Prosječno poboljšanje protoka urina bilo je od 7 +/- 9 na 26 +/-7 ml/s. Nije bilo niti jednoga slučaja postoperacijske inkontinencije.
Zaključak: Primarna opstrukcija na razini vrata mokraćnoga mjehura veoma je rijedak poremećaj, koji se onda kad je dijagnoza dobro postavljena može učinkovito liječiti jednostavnom operacijom bez većih rizika.

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ŠTO PROSJEčNI UROLOG TREBA ZNATI O LASERSKOJ KIRURGIJI I TUR BIPOLARNIM RESEKTOSKOPOM?

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Kratak prikaz laserske kirurgije prostate i tumora mjehura, te tipovi lasera koji su danas u upotrebi. U prikazu će biti i prikazana razlika između transuretralne resekcije klasićnim resektoskopom i resekcije bipolarnim resektoskopom.

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ENDOSKOPSKO LIJEČENJE VEZIKOURETERALNOG REFLUKSA - NAŠA ISKUSTVA

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For many years, open surgery was the standard of care for treatment of primary vesicoureteral reflux.In recent years minimally invasive techniques for the endoscopic correction of these maladies have been developed and refined, obtaining reasonable succes rates.Endoscopic subureteric injection of tissue-augmenting substances has become an alternative to long-term antibiotic prophylaxis and open surgery since 1981. when Matouschek described endoscopic injection of polytetraflourethilene (Teflon paste).Distant migration of the Teflon was the major concern which is

solved in recent years using new biodegradable alternative substance - dextranomer/hyaluronic acid copolymer (Deflux).
During the last three years we performed 224 endoscopic procedures in children with VUR and treated 297 reflux units using subureteric Deflux injection.Most of the children had VUR grade II or III.We also treated 34 children with duplicate ureters.Average volume of injected Deflux in order to create adequate "bulging efect" was 0,9 ml (range 0,6 -1,5 ml of agent per unit).Some of the patients with endoscopically treated VUR had previously experienced voiding dysfunction, three of them had neurogenic bladder.
After a single injection of Deflux reflux was corrected in 76% of patients according to folow up cystourethrogram taken 3-6 months after aplication.This overall success rate is decreasing in cases of severe VUR grades IV and V, duplicated ureters and children with some degree of voiding dysfunction.We experienced only few complications like temporary ureteral enlargement (three children) and local submucosal migration of Deflux implant proximally to the ureteral orifice.
Based on our experience we conclude that endoscopic treatment of VUR is a valid alternative to long-term antibiotic prophylaxis and to open surgery.Short hospital stay, painless procedure, absence of significant postoperative complications and reasonable high success rate made subureteral Deflux injection as method of choice in treatment of vesicoureteral reflux in children.

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LAPAROSKOPSKA ADRENALEKTOMIJA

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Cilj: Laparoskopska adrenalektomija uvedena je u kliničku praksu 1992. godine, nakon čega ubrzo postaje standardni zahvat liječenja benignih tumora nadbubrežne žlijezde. Cilj rada je prikazati rezultate laparoskopskih adrenalektomija na Odjelu za urologiju KB Split.
Metode: Studijom je obuhvaćeno 11 pacijenata koji su liječeni laparoskopskom adrenalektomijom između svibnja 2004. i lipnja 2006.godine. Operativnom zahvatu je prethodila endokrinološka i radiološka obrada. Indikacije za laparoskopsku adrenalektomiju su bile: aldosteronom (n=4), nefunkcionalni adenom (n=3), feokromocitom (n=2), glukokortikoidno-producirajući adenom (n=1) i metastatski karcinom (n=1). Na CT-u kod svih pacijenata adrenalni tumori su bili dobro ograničen, bez invazije okolnog tkiva i bez limfadenopatije. Kod svih pacijenata zahvat je izvršen transabdominalnim pristupom s 3 ili 4 troakara.
Rezultati: Ukupno je bilo operirano 11 pacijenata (6 žena i 5 muškaraca), u dobi od 39 do 75 godina (prosječne dob 60±12 godina). Kod 6 pacijenata urađena je desnostrana, a kod 5 pacijenata lijevostrana adrenalektomija. Prosječna veličina tumora je 3.7cm (najmanji 1cm, a najveći 7cm). Kod dvoje pacijenata urađena je konverzija u otvoreni kirurški zahvat i to kod jednog pacijenta zbog pneumotoraksa, a kod drugog pacijenta zbog slabe vizualizacije tumora. U niti jednom slučaju nije bila potrebna transfuzija krvi. Prvog poslijeoperativnog dana kod svih pacijenta je odstranjen dren, a drugog dana su otpušteni na kućnu njegu.
Zaključak: Laparoskopska adrenalektomija je sigurna metoda liječenja tumora nadbubrežne žlijezde. U odnosnu na otvoreni kirurški zahvat laparoskopska metoda ima manji broj komplikacija, manji gubitak krvi, manje bolne incizije, brži povratak operiranih uobičajenim aktivnostima, kraću hospitalizaciju te manje troškove liječenja.

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URETERORENOSKOPIJA U LIJEČENJU KAMENACA URETERA NA ODJELU ZA UROLOGIJU KB SPLIT U RAZDOBLJU OD 2002. DO 2006.GODINE

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Metode: Podaci su prikupljeni obradom podataka iz kartoteke Odjela za urologiju KB Split. Ureterorenoskopski je tretirano 247 pacijenata (muškaraca 128, žena 119) s ureteralnim kamencima. Najviše kamenca je bilo smješteno u distalnom dijelu uretera 163(66%), zatim u proksimalnom dijelu 43(18%), te u srednjem dijelu 41(16%).

Rezultati: Prosječna dob pacijenata je bila 54 39 godina (najstariji pacijent je imao 84 godina, a najmlađi 20 godina). Prosječno trajanje hospitalizacije bilo je 5.8 6 dana (najduži boravak 38 dana, a najkraći 1 dan). Kamenac je bio smješten lijevom ureteru kod 132(53%) pacijenta, a u desnom kod 115(47%) pacijenta.Kod 24 pacijenta (10%) zahvat je završio neuspjelom ekstrakcijom kamenca.
U proksimalnom dijelu uspješnost dezintegracije i odstranjenja kamenaca bila je 74%, u srednjem dijelu 88%, te u distalnom dijelu 95%. Između uspijeha URS i lokalizacije kamenca u ureteru postoji statistički značajna razlika (p=0.002 =17,4), dok ne postoji statistički značajna razlika između uspijeha zahvata po spolu (p=0.95) te lateralizaciji kamenca (p=0.85).
Zaključak: URS tretman je visoko efikasna metoda liječenja kamenaca uretera.

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SIMULTANEOUS BILATERAL LAPAROSCOPIC ADRENALECTOMY

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Introduction: Laparoscopy is now widely used method for removal of benign adrenal tumors. This paper reports our experience in simultaneous bilateral laparoscopic adrenalectomy.
Material and methods: Eleven patients underwent simultaneous bilateral laparoscopic adrenalectomy between May 2001 and October 2006. Ten patients (6 females and 4 males) had Cushing's disease and one (female) had bilateral pheochromocytoma (MEN 2). Bilateral adrenalectomy was performed to control symptoms of Cushing's disease. Preoperative investigations included computed tomography (CT) or magnetic resonance imaging (MRI), along with biochemical and hormonal assays.
Results: Laparoscopic bilateral adrenalectomy was accomplished in 11 patients. No conversion to open surgery occurred. The bilateral adrenalectomy required a mean operative time of 225 min (range 190 - 280). All patients were obese and we change the position of the patients intraoperatively, we usually first perform the right side. There were no intraoperative and post-operative complications. Mean hospital stay was 3 days (range 2-8 days). No patient required blood transfusion. Mean tumor size was 5.2 cm (range 3.0 - 10.0 cm). At median follow-up of 16 months, all patients reported improvement in all Cushing-related symptoms. MEN 2 patient was normotensive.
Conclusion: Simultaneous bilateral laparoscopic transperitoneal adrenalectomy is effective treatment for Cushing's disease, as well as for bilateral pheochromocytoma. The advantages of the laparoscopic approach include shorter length of stay, decrease in postoperative pain, faster return to preoperative activity level, improved cosmetic effect, and reduced complications. It should be emphasized that these procedures can be accomplished safely only by experienced surgeons.

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LAPAROSKOPSKA RETROPERITONEALNA LIMFADENEKTOMIJA KOD TUMORA TESTISA

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Uvod: Laparoskopski operativni pristup se sve češće, te kod sve većeg broja indikacija primjenjuje u urologiji. U ovom radu iznosimo naša iskustva u liječenju bolesnika s neseminomskim tumorima testisa koristeći ovu operativnu tehniku.
Metode: Od lipnja 1999. do listopada 2006. laparoskopska retroperitonealna limfadenektomija je učinjena kod 64 bolesnika s neseminomskim tumorima testisa koristeći transperitonealni pristup. U stadiju I bolesti bilo je 56 bolesnika, II A stadij bolesti imalo je 8 bolesnika.
Rezultati: Postoperativni tijek je bio uredan kod svih bolesnika. Trajanje hospitalizacije iznosilo je 3 do 7 dana. Operativni zahvat trajao je od 180 do 350 minuta. Maksimalni intraoperativni gubitak krvi bio je 200 ml.
Zaključak: Naša iskustva pokazuju da je laparoskopska retroperitonealna limfadenektomija siguran i minimalno invazivan način liječenja bolesnika s karcinomom testisa. Nizak morbiditet, kraće vrijeme hospitalizacije te brži oporavak bolesnika govore u prilog primjene ove tehnike u liječenju bolesnika s malignim tumorima testisa.

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LAPAROSKOPSKA RETROPERITONEALNA LIMFADENEKTOMIJA NAKON KEMOTERAPIJE U BOLESNIKA S TUMOROM TESTISA

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Uvod: U ovom radu prikazani su rezultati inicijalnih iskustava u retroperitonealnoj limfadenektomiji nakon kemoterapije, u bolesnika s tumorom testisa.
Metode: Od rujna 2003. do listopada 2006. učinjeno je 11 laparoskopskih retroperitonealnih limfadenektomija nakon provedenog kemoterapijskog liječenja. Učinjeno je 6 laparoskopskih retroperitonealnih limfadenektomija s lijeve strane, te 5 na desnoj strani.
Rezultati: Kod svih bolesnika, laparoskopska retroperitonealna limfadenektomija nakon provedene kemoterapije, uspješno je učinjena, te nije bilo potrebe za konverzijom u otvoreni kirurški zahvat. Vrijeme trajanja zahvata bilo je između 140 i 240 minuta (prosječno 180 minuta). Nije bilo potrebe za transfuzijom krvi, a gubitak krvi bio je minimalan. Prosječna veličina retroperitonealnih masa bila je 3.5 cm (raspon od 2.5 do 4 cm). Patohistološka analiza ukazivala je na zreli teratom u 9 bolesnika i nekrozu u dva bolesnika. Kod jednog bolesnika javio se hilozni ascites koji je nestao nekon dijete s malo masnoća. Prosječno vrijeme boravka nakon operacije iznosilo je 4 dana (raspon 2 do 6 dana). Iako je vrijeme praćenja tih bolesnika kratko, nije bilo lokalnog recidiva.
Zaključak: Retroperitonealna limfadenektomija nakon kemoterapije, laparoskopskim pristupom pokazala se učinkovitom i sigurnom metodom u odabranoj grupi bolesnika s rezidualnim retroperitonealnim masama, te je povezana s niskim morbiditetom.

ENDOSKOPSKI ZAHVATI U OTORINOLARINGOLOGIJI

ENDOSCOPIC PROCEDURES IN OTORHINOLARYNGOLOGY

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ENDOSCOPIC RADIOFREQUENCY VOLUMETRIC TISSUE REDUCTION FOR TREATMENT OF TURBINATE HYPERTROPHY IN NON-ALLERGIC PATIENTS

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Objectives: Endoscopic radiofrequency tissue volume reduction (ERFTVR) for the turbinate is a new treatment modality for nasal obstruction secondary to turbinate hypertrophy. We prospectively evaluate the safety and effectiveness of radiofrequency volumetric tissue reduction (RFVTR) for the treatment of nasal obstruction caused by inferior turbinate hypertrophy.
Material and Methods: Thirty-three consecutive patients with nasal obstruction and associated inferior turbinate hypertrophy refractory to medical therapy were evaluated for ERFVTR. The procedures were performed in an ambulatory facility with patients under local anesthesia using an ArthroCare ReFlex Ultra 45 wand making three submucousal chanalls per turbinate. Clinical examinations, visual analog scales, and rhinomanometry 6 weeks after the treatment were used to assess treatment outcomes.
Results: No adverse effects were encountered, including bleeding, crusting, dryness, infection, adhesion, or a worsening of obstruction. Nasal breathing was improved in all patients significantly decreasing the mean visual analog score from 3,27+/- 1,28 to 0,87 +/- 0,927 ($p<0,001$). Total nasal resistance was decreased from 0,48 +/- 0,60 to 0,26+/- 0,178 ($p<0,05$).
Conclusion: The results of this study demonstrate that ERFVTR of the hypertrophic inferior turbinate is associated with minimal adverse effects. The use of RF for submucosal tissue ablation in the hypertrophied inferior turbinate is an effective modality for reducing symptoms of nasal obstruction.

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ENDOSCOPIC SEPTOPLASTY: INDICATION AND TECHNIQUE

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Endoscopic septoplasty is an attractive alternative to traditional "headlight" approaches to septoplasty. Different terms are used for such type of surgery as: endoscopic septoplasty, mini septoplasty or minimal invasive micro - endoscopic septoplasty. The primary advantage of the technique is the ability to reduce morbidity and postoperative complication (swelling, septum hematoma, etc) in isolated septal deviation by limiting the dissection to the area of the deviation. This ability to markedly reduce the extent of subperichondrial dissection preserves potential cartilage and mucosal damage. Other advantages include improved visualization particularly in more posterior dissections and its use as an effective teaching tool.
This technique gives us the best results using in following cases:
1. Patients who have undergone prior septal cartilage resection
2. For better visualization in posterior septal deformities (horizontal crist, isolated spur)
3. To improve surgical transition between septoplasty and sinus surgery
4. As effective teaching tool

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NAŠI REZULTATI ENDOSKOPSKI OPERACIJA SINUSA- DESETOGODIŠNJE ISKUSTVO

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Uvod: Sa endoskopskom kirurgiom sinusa započeli smo 1994. godine. U proteklih deset godina na odjelu je operirano je 810 bolesnika. 215 bolesnika sa nosnom i sinusnom polipozom, te 595 bolesnika sa kroničnom upalom sinusa. Od 1996. godine sve podatke vezane uz anamnezu, lokalni endoskopski status i terapiju upisujemo u posebno napravljeni upitnik. Jednako tako podaci o operacijama i post operativno praćenje evidentiraju se u zasebnim upitnicima. Uz sve te upitnike priložene su i CT snimke sinusa bolesnika. Cilj nam je prikazati naše rezultate, rane i kasne komplikacije, te naša iskustva.
Materijal: 696 bolesnika sa potpunom dokumentaciom statistički je obrađeno i prikazano. 181 sa nosnom i sinusnom polipozom te 515 sa kroničnom upalom sinusa.
Rezultati: Najčešći simptomi bili su: čeona glavobolja (383-55,1%), stražnja rinoreja (358-51,5%) i otežano disanje kroz nos obostrano (352-50,6%). Najčešće anatomske varijacije na CT-u bile su: bulozna SNŠ (359-56,7%), krista ili spina septuma (391-56,2%) i dodir GNŠ sa septumom (229-36,2%). Lund score za CT bio je 5,341 u prosjeku. Najčešće operacije bile su: totalna etmoidektomija (desno 360-51,8%, lijevo 370-53,2%) te septoplastika (317-45,5%). Kod 18 (2,6%) bolesnika intraoperativno došlo je do ozljede lamine papirace i protruzije orbitalne masti, kod 4 (0,6%) lamine kribroze što je odmah zbrinuto. Periorbitalni krvni podljev bio je prisutan kod 28 (4,1%). Od kasnih komplikacija jedan bolesnik je imao likvor fistulu, jedan meningitis, a sinehije 132 (19,4%). Zbog opstrukcije frontalnog recesusa i rekurencije bolesti reoperirano je 21 (3,0%) bolesnik zbog kroničnog sinuitisa i 25 (3,6%) zbog polipoze.

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COMPLICATIONS IN ENDOSCOPIC SINUS SURGERY AND HOW TO AVOID THEM

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Background: The surgery in most of the cases is not anything more than an expression of our incapability to understand things. The lack of understanding the pathophysiology will certainly lead to the mistakes and even to misfortune, since a vast majority of misfortune cases happened when the indication for the surgery was not absolutely clear.
The rules: The number one at the list of reasoned trouble shooting guide is: to know why. The second one is: to know how. The third point at the list of rules should be: be critical to yourself and your surgical capabilities! The fourth point is: never push your patient to undergo surgery! Vast majority of misfortune cases are those who were forced for the surgery! The fifth point of the trouble shooting guide: talk to patient! Try to explain what you intend to do, what are the possible complications, what are the real expectations etc.!
From the technical point of view, first try to avoid the classical uncinectomy wherever you can. One must remove uncinate process in almost all cases of orbital decompression for instance, but at the same time in a very scarce number of chronic sinusitis.
Secondly, try to avoid the remarkable resection of the middle turbinate, particularly in its anterior parts, even in cases of so called maxi-polyposis.
Thirdly, do not be the Turbinator, meaning: do not destroy the nose. Don't produce TENSOS (an abbreviation meaning Totally Empty Nose Syndrome of Stenquist).
Fourth, do not insist to identify ethmoidal arteries in every single real patient! This could be very embarrassing since during the attempt of identification this vessel can be seriously damaged.
Finally, the fifth point is to try to avoid being very precise in removing the polypous tissue from the rhinobasis. Nasal polyps can destroy the lesion of this artery could be very dangerous.
Conclusions: Try to bear in mind all these ten rules, five of them mostly philosophical, other five mostly technical, and perhaps you will be happy enough to escape from all the misfortunes, pitfalls and hazards of this otherwise attractive and sometimes even spectacular technique.

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ANTROCHOANAL POLYPS: WHY DO THEY RECUR?

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The use of endoscopes made possible to finally understand that so called accessory ostia of the maxillary sinus do not exist at all, i.e. that only one natural ostium of the maxillary sinus exists in reality. Therefore all other "holes" that can be seen at the lateral nasal wall during endoscopy mean the same: the defect, i.e. chronic inflammation of the maxillary sinus itself. It seems, furthermore, that the cyst at the posterior wall of the maxillary sinus in cases of antrocchoanal polyps (ACP) is not just a simple retention cyst as other cysts in this sinus are. It rather goes for a circumscript inflammation of the regional mucosa of grade 2 to 3 after Terrier's classification. So, when operating antrochoanal polyp it it is not enough to remove the "polypous" part from the nasal cavity and than get into maxillary sinus and pull out the cyst. What one has to perform is to precisely identify the natural ostium first, and than to make "unification" of the natural ostium and the defect of the posterior fontanellae as to make a widely open approach to the posterior sinus wall. As to the recurrences of ACP, it must be pointed out that the wall of the sinus cyst histologically shows very loose, edematous stroma full of inflammatory cells and dilated vessels, suggesting chronic inflammation. According to Kern and Zinreich, chronic osteomyelitis can be found in almost all cases of chronic sinusitis. Inflammation of the bone produces the sequestration. A new, avascular bone replaces sequestered parts forming so called involcrum (meaning an envelope), containing exudates and debris, therefore supporting the maintenance of the chronic inflammation. In addition, recent molecular studies of the ACP showed up-regulation of bFGF (basic fibroblast growth factor), up-regulation of TGF (transforming growth factor) and up-regulation of MUC genes (MUC 5AC, MUC 5B, MUC 8), thus suggesting the importance of the local inflammatory reaction.
Thus, the surgery for antrochoanal polyps performed in this way diminishes the chances for recurrences, which at the moment, even in cases operated endoscopically, seems to range between 3 up to 16%.

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ENDONASAL ENDOSCOPIC ORBITAL DECOMPRESSION (EEOD): EXPECTATIONS, COMPLICATIONS AND LIMITS

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Surgical decompression of the orbit can resolve some of the symptoms of Graves' ophtalmophaty. The advantages of this procedure are avoiding bone removal and lessened morbidity compared with external ethmoidectomy or transantral surgery, also less dysesthesia of the infraorbital nerve, with fewer tooth problems and cosmetic disfiguring by uncontrolled scars. However, diplopia often develops and/or worsens postoperatively, as an undesired side effect of this technique.
In our everyday practice, best-corrected Snellen visual acuity improved after surgery. We also observed the reduction in intraocular pressure. These findings were expected, because orbital decompression increases the size of the orbital cavity, which reduces the infraorbital pressure, further fluid retention, and compression of the optic nerve. This and the reduction of proptosis and eyelid retraction significantly reduced the severity of exposure keratitis, which additionally improved the vision. Furthermore, one must think of the possibility to encounter the Aschner-Dagnini's oculo-cardial (oculo-vagal) reflex during the surgery, particularly when performing incisions along the periorbit, or during the delivery of the retrobulbar contents following the pressure on the eyeball. In most of the cases this reflex clinically presents as a sinus-bradicardia, but in some cases even asystolia was seen, requiring an immediate intervention (intravenous atropine), as to prevent a real cardiac arrest.

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ENDONASAL ENDOSCOPIC OPTIC NERVE DECOMPRESSION

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As to the optic nerve decompression, the most important issue is not the technique itself, since for the experienced surgeon it represents one of very demanded surgical procedures which requires extremely high grade of skills, concentration and knowledge. But, timing is much more important. Several years ago it was believed that it is not worthy to decompress optic nerve if more than 6-12 hours have passed from the moment of the injury. However, nowadays we know from our everyday practice that the try to decompress optic nerve is worthy even after more than two weeks. One must bear in mind that in most cases optic nerve problem is hidden within coma in polytraumatized patient. Nobody can be sure about the visual function in such a patient. Even if the patient after successful recovering from coma seeks our attention because of visual loss, wrong general opinion that at that time it is absolutely to late to repair anything leads directly to the permanent blindness. Which is a great pity. So, there is a very simple formula here: if the patient already does not see, he or she has nothing to loose, therefore any attempt to restore the visual function is worthwhile. One must not forget that any endonasal endoscopic optic nerve decompression begins with the orbital decompression since the most important moment in this surgery is to identify clearly the Zinn's ring as the most anterior margin of the optic nerve canal itself. Particular attention has to be paid to the course of the ophthalmic artery during the use of a fine drill. Some authors insist on the incision of the perineural sheet after the removal of the optic nerve canal bony capsule. According to our experience, this is not necessary.

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ENDONASAL ENDOSCOPIC DACRYOCYSTORHINOSTOMY (EEDCR)

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There are two main advantages of the endonasal endoscopic dacryocystorhinostomy (EEDCR) in comparison to the external one: the fact that there is no external (visible) scar in the middle of the face and the fact that during this procedure two essential anatomical structures, important for the lacrimal system, remain untouched: medial palpabral ligament and orbicular oculi muscle.
The procedure begins in front of the most anterior part of the middle turbinate insertion. We perform very gentle electocoagulation or we apply a diode-laser as to remove the nasal mucosa from the future operating field. The next step is to drill out the thick bone of the frontal process of the maxilla, always pretending to get as close as possible to the lacrimal fossa. Once a bluish appearance of the lacrimal sac finally shows up in the field, a further dilatation of the bony defect is performed as to gain enough room for the sharp maruspialization of the medial portion of the sac. The probing through puncta lacrimalia enables so-called tenting of the lacrimal sac before the incisions. This makes resection more precise.
We do not use any stents in the postoperative period. The results are very good. We experienced only one stenosis of the surgical opening after six month, but it was a case of chronic dacryocystitis after serious facial trauma and the patient had a lot of scars even before our surgery.
A loose nasal package with a small piece of gauze and steroid-antibiotic ointment is usually placed in the neighborhood of the operated area during first 48 hours. After the removal, the irrigation of the canalicula and the rest of the sac is performed at least once a week using steroid solutions. The aim of irrigations is to prevent granulations and scar formation in the region of the new opening.

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CSF - LEAK FROM THE NASAL SEPTUM - AN ENDOSCOPIC APPROACH

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Cerebrospinal fluid (CSF) leaks from the anterior skull base defects present a difficult diagnostic and management problem. The presence of a minimal skull base defect can result in a CSF leak, a meningocele, or an encephalocele.They are usually "silent" and only detected when complications occur such as CSF-leak or meningitis. Among all well known weak points of the anterior skull base, the cribriform plate plays the most important role.
The authors present a case of unilateral CSF-leak from the nasal septum. Clinical, radiological and intraoperative findings, in accord with otherwise scarce literature data, suggested the arachnoidal cyst (AC).
The enigma of the pathological background of this clinical entity remained unexplained. According to radiological findings, the most acceptable diagnosis could be an unusual extension of the liquoral space into nasal septum, most probably an AC. Arachnoid cyst are defined as cavities with a wall made of arachnoid cells that contain a CSF-like fluid. They could mimicking meningocele. AC represent less than 1% of all space-occupying lesions in the skull. They are twice more frequent in men then woman. This gender preference also remains unexplained.
The communication between endocranium and nasal septum through the cribriform plate could be explained by the Otto's embriological theory on the onset of the anterior skull base defects (4): during embryogenesis, mesenchymal clefts with epithelial duplications occur between the branchial arches in the pharyngeal pouches at points where the ectoderm and endoderm come into direct contact with each other. The oropharyngeal membrane and the cloacal membrane are typical examples of such epithelial duplications. The failure of such mesenchymal clefts to close (inhibition malformation) leads to the development of the encephaloceles or AC of the skull base (4).
There are at least three good reasons to think of AC in our patient: first, we found abundant CSF-leak from the cribriform plate itself, second, we did not detect any tissue resembling dura, and third, the arachnoidea is so thin and gracile that in most cases is not recognizable at all. Still, there is no an absolutely reliable explanation for both clinical picture and intraoperative finding of this case.

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AN ENDOSCOPIC APPROACH TO CHOANAL ATRESIA

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Choanal atresia is not an isolated morphological problem. Rhinosurgeon should not focus himself on how to restore normal choanal patency. Of course it is very important, but much more important is to gain a real insight in the biological profile of the atretic child. This is because of the fact that in more than 56% of all cases suffering from bilateral choanal atresia one can find at least one or two signs confirming the existence of CHARGE syndrome. CHARGE is an acronym coined by Pagon in 1981. meaning: coloboma, heart disease, atresia, retardation, genital problems (hypospadia), and ear disorders, (microtia, appendices etc.). Hall and his collaborators have described this syndrome for the first time in the year 1979. The most important part of this syndrome is hart disease (ductus Bottali persistens, Fallot's tetralogy) since these irregularities could be life threatening and thus could jeopardize even perfect surgical result.
In cases of heart irregularities we strongly recommend cardiac surgery first, and choanal restoration only after complete recuperation from the first procedure. This means that the old paradigm of an immediate surgical approach to the choanae has been abandoned for the sake of patient's safety.
Our surgery consists of placing a small piece of gauze into nasopharynx as to prevent possible lesions of the posterior nasopharyngeal wall while penetrating through atretic tissues, and than of an endoscopic approach to the presumed location of the future choana, one by one nose side, using very thin monopolar electrocoagulation or diode laser as to remove mucosa. If there is an underlying bone, we try first to remove it by means of sharp curette. In case it does not work we use a fine drill.
We found removal of the posterior fifth of the nasal septum extremely useful in terms of postoperative stenosis prevention. We do not use any stents or splints after the procedure.

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AN ENDOSCOPIC APPROACH TO SEPTAL DEFORMITIES

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Endoscopic approach to the septal deformities is acceptable for at least two facts:
1. this technique offers very precise insight in the boundaries of the deformity itself and at the same time enables very precise removal of deformed parts of the nasal septum
2. enables spectators in the operating room to completely understand and follow basic steps in septal surgery which otherwise is not easily visible

Our experience allows us to suggest very precisely in exactely which types of septal deformities an endoscopic technique is resonable. Therefore we suggest only types 3 and 5. Type 3 is an unilateral vertical deflection, but located more deeply in the nasal cavity, i.e. next to the head of the middle turbinate. Type 5 means an almost horizontal septal spur, which sticks as laterally as deeper in the nasal cavity. Belongs to so called posterior septal deformities. Resembles very much the old Turkish sabre. The opposite side is always almost flat.
However, an endoscopic approach is recommended only when it fits well with the main concept of the whole operation, i.e. in cases when surgeon anyway has to perform certain kind of endoscopic surgery (for instance ethmoidectomy, antrostomy, orbital decompression etc.) meanwhile septal deformity obstructs the vision and clear approach to the operating filed. In cases of isolated septal deformity, we do not see the neccessity of an endoscopic approach except for strictly educational reasons.

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MIKRODEBRIDER U ENDOSKOPSKOJ KIRURGIJI NOSA I PARANAZALNIH ŠUPLJINA

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Pojavom novih instrumenata u endoskopskoj sinusnoj kirurgiji znatno se poboljšava ta metoda kirurškog liječenja bolesti nosa i paranazalnih šupljina. "Powered instrumentation" je svakako dio novog instrumentarija, koji je uz razvoj endoskopa i CT-a, postao najvažnijim tehnološkim pokretačem napretka endoskopske sinusne kirurgije.
Rotacijski sukcijski nož (shaver ili microdebrider) je najvažniji dio tog "moćnog instrumentarija" koji se od 1985. godine upotrebljava u ortopedskoj kirurgiji. U otorinolaringologiji se rabi od 1992. godine i s vremenom se pokazao izvrsnim instrumentom koji ima važno mjesto u armamentariju endoskopske sinusne kirurgije.
Mikrodebrider je kombinacija oštrice i sukcije koji rade zajedno i istodobno tako da se odstranjuje odrezano tkvo iz operacijskog polja. Postoji vanjski kanal s prozorom koji štiti unutarnji rotirajući nož.
Kirugija mikrodebriderom je vrlo precizna i vrlo malo mutilira. S mikrodebriderom je moguće sačuvati zdravo tkivo i odstraniti samo patološki promijenjeno. Naravno da su moguće i komplikacije, koje mogu biti i kobne, poput lezija orbite i mozga. Poslijeoperacijski procesi cijeljenja brži su nego nakon zahvata klasičnim instrumentima, bez opstrukcija i krasta u operativnom polju.
Primarna indikacija je masivna polipoza nosa i paranazalnih šupljina, premda je danas i mnogim rinokirurzima mikrodebrider osnovni instrument, pa ponekad i jedini uz endoskop, tijekom endoskopske kirurgije uglavnom svih indikacija za takvo liječenje. Osim navedenih indikacija u otorinolaringologiji, mikrodebrider se rabi i za adenoidektomije, hoanalne atrezije, turbinoplastike, dakriocistorinostomije, operacije tumora larinksa i traheobronhalnog debla, resekcije tumora sele turcike.
Mikrodebrider znatno poboljšava endoskopsku kirurgiju omogućujući jasnije i preglednije operacijsko polje i uzrokujući manje traume od drugih instrumenata, ali u iskusnim rukama.

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ENDONAZALNI ENDOSKOPSKI PRISTUP TUMORIMA SREDNJE I STRAŽNJE LUBANJSKE JAME

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Tumorozne tvorbe sfenoidalna sinusa, navlastito one koje zahvaćaju ili konzumiraju njegovu lateralnu ili stražnju stijenku i time se šire prema srednjoj ili stražnjoj lubanjskoj jami i vrlo specifičnim endokranijskim strukturama, predstavljaju poseban izazov za endonazalnog endoskopskog kirurga s obzirom na velike opasnosti koje prijete tijekom zahvata. Ovdje se ne radi o kirurškoj akrobatici na račun bolesna čovjeka niti o dokazivanju kirurgove manualne spretnosti i lažne hrabrosti, nego se najčešće radi o jedinoj racionalnoj soluciji pri uspostavljanju jasne i konačne dijagnoze. Naime, nerijetko se radi o tvorbama za koje ni na kakav drugi način nije moguće doznati njihovu histološku narav, pa se prema tome ne može adekvatno ni planirati liječenje. Endonazalni endoskopski pristup omogućuje izravan kontakt sa sumnjivim tvorbama u neugodnim regijama poput okoliša arterije basilaris, spinalna kanala i područja moždanih živaca okruženih velikim i važnim krvnim žilama u stražnjoj jami, ili kolopleta važnih moždanih živaca i velikih vaskularnih kompleksa kao što je slučaj u kavernoznom sinusu.
Ipak, ako radiološke metode ukazuju na činjenicu da je tumefakt smješten tako da se izbočuje prema samom sfenoidalnom sinusu, te da po svoj prilici time zadržava najvažnije anatomaske elemente iza sebe (ili ispred sebe) i "skriva" ih od izravna doticaja s instrumentima tijekom otvaranja sinusa, nema razloga da se tumorima ne pristupi ovim putem. Tim više što je taj pristup tehnološko dostignuće koje omogućuje ono što prije ere endoskopske sinusne kirurgije nije bilo ni zamislivo.
Pristup ovako smještenim tumorima spada isključivo u ruke najiskusnijih endoskopskih kirurga.

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LASER IN EAR SURGERY

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Ear surgery has evolved during the last century form radical, life saving procedures to microsurgical discipline with great ambitions to preserve functionality. The change is most owned to technical innovations (surgical microscope, microsurgical instruments and modern reconstructive materials). Modern ear surgery demands micromanipulation with fine anatomic structures, and one way to obtain it is contact less surgery using a laser. Specific physical characteristics of different laser beams considering wave length, make it specifically useful on certain anatomic areas. Use of laser in the ear is most appreciated in stapes surgery, but there are still some controversies about its real value. Other anatomic structures within the middle ear are less frequently treated with laser and its advantages are less commonly advocated.
It is necessary to recognize real indications for laser application, and reject the urge to follow fashion in medicine. Laser can not be a substitution for surgical skill and technique, but only an additional instrument to reach specific goals.

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UPOTREBA SVRDLA U ENDOSKOPSKOJ SINUSNOJ KIRURGIJI

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Endoskopska sinusna kirurgija danas je priznata i prihvaćena metoda rješavanja sinusne patologije. Uvježbavanje kirurške tehnike i napredak tehnologije doveo je do toga da se danas većina operacija paranazalnih sinusa izvodi endoskopski, a samo iznimno opsežne bolesti - prvenstveno maligne bolesti - zahtijevaju klasični otvoreni pristup. Zbog anatomskih osobina paranazalnih sinusa i rinobaze - prvenstveno koštanih omeđenja i koštanih pregrada među pojedinim sinusnim prostorima - svaka operacija bilo otvorena ili endoskopska zahtijeva manji ili veći opseg odstranjenja kosti. Klasični način odstranjenja kosti podrazumijeva upotrebu dlijeta i raznih koštanih kliješta

("štanci"). Dobra vizualizacija i poznavanje anatomije dozvoljava primjenu električnih svrdla i brusilica ("freza") u endoskopskoj sinusnoj kirurgiji. Svrdla i freze raznih dimenzija koriste se uz primjenu posebnog dugog ručnog nastavka koji omogućava rad u dubokim regijama bez rizika oštećenja bližih struktura rotirajućom osovinom bušilice. Koriste se klasična i dijamantna svrdla i freze. Osnovni principi korištenja isti su kao u otokirurgiji gdje se ova tehnika primjenjuje pod kontrolom mikroskopa već desetljećima. Osim u endoskopskoj sinusnoj kirurgiji ovu tehnologiju najčešće primjenjujemo u endosokopskoj dakriocistorinostomiji. Upotreba kompjutorske navigacije koja je u mnogim centrima već u primjeni smanjit će rizike i proširiti indikacije za upotrebu svrdla u endoskopskoj sinusnoj kirurgiji.

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USE OF ADVANCED VIRTUAL REALITY TECHNIQUES AND 3D COMPUTER ASSISTED TECHNOLOGIES (3D CAS) IN TELE-3D-CAS DIAGNOSTICS AND SURGERY

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Background: Research in the area of 3D image analysis, visualization, and tissue modelling provides scientific expertise necessary for developing successful 3D-CAS (3D-computer assisted surgery), Tele-3D-CAS, and VR (virtual reality) applications. Mentioned technologies represent a basis for realistic simulations that are useful in many areas of human medicine, and can create an impression of immersion of a physician in a non-existing, virtual environment.
Study design: The real-time requirement means that the simulation must be able to follow the actions of the user that may be moving in the virtual environment. The computer system must also store in its memory a 3D model of the virtual environment (3D-CAS models). In that case a real-time VR system will update the 3D graphical visualization as the user moves, so that up-to-date visualization is always shown on the computer screen. Upon the completion of the tele-operation, the surgeon compares the preoperative and postoperative images and models of the operative field, and studies video records of the procedure itself.
Results: Our team used several standards to encode live video signals in telesurgery, such as M-JPEG, MPEG1, MPEG2 and MPEG4. For conferencing/consultation cameras used between two or more connected sites during the surgery, we used JPEG and MPEG1 stream with audio. ORs were connected using several computer network technologies with different bandwidths, from T1, E1 and multiple E1 to ATM-OC3 (from 1Mb/s to 155Mb/s). For computer communications using X-protocol for image/3D-models manipulations, we needed an additional 4Mb/s of bandwidth, instead of the 1Mb/s when we used our own communication tools for the transfer of surgical instrument movements. The final step of this project is to create an extremely large uncompressed database (2x47 TB), where all multimedia content will be saved into a massive database with a maximum resolution, and in a format not depending on a resolution.
Conclusions: Using intraoperative records, animated images of the real tele-procedure performed can be designed. VS offers the possibility of preoperative planning in rhinology. The intraoperative use of computer in real time requires development of appropriate hardware and software to connect medical instrumentarium with the computer, and to operate the computer by thus connected instrumentarium and sophisticated multimedia interfaces (www.mef.hr/MODERNRHINOLOGY).
Literatura:

1. Klapan I, Šimičić Lj, Rišavi R, Bešenski N, Bumber Ž, Stiglmajer N, Janjanin S. Dynamic 3D computer-assisted reconstruction of metallic retrobulbar foreign body for diagnostic and surgical purposes. Case report: orbital injury with ethmoid bone involvement. Orbit 20 (2001), 35-49.
2. Klapan I, Šimičić Lj, Rišavi R, Pasari K, Sruk V, Schwarz D, Barišić J. Real time transfer of live video images in parallel with three-dimensional modeling of the surgical field in computer-assisted telesurgery. J Telemed Telecare 8 (2002), 125-130.
3. Klapan I, Šimičić Lj, Bešenski N Bumber Ž, Janjanin S, Rišavi R, Mladina R. Application of 3D-computer assisted techniques to sinonasal pathology. Case report: war wounds of paranasal sinuses with metallic foreign bodies. Am J Otolaryngol 23 (2002), 27-34.
4. Klapan I, Šimičić Lj, Rišavi R, Bešenski N, Pasarić K, Gortan D, Janjanin S, Pavić D, Vranješ Ž. Tele-3D computer assisted functional endoscopic sinus surgery: new dimension in the surgery of the nose and paranasal sinuses. Otolaryngol Head Neck Surg 127 (2002) 549-557.
5. Klapan I, Vranješ Ž, Rišavi R, Šimičić Lj, Prgomet D, Glušac B. Computer assisted surgery and computer-assisted telesurgery in otorhinolaryngology. Ear Nose Throat J, 85(2006) 318-321.

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PRIMJENA LASERA U ENDOSKOPSKOJ KIRURGIJI ŽDRIJELA

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Uvod: Od pojave laserske tehnike u kirurgiji u 60-tim godinama prošlog stoljeća, tehnika je naišla na sveopću primjenu u otorinolaringologiji i kirurgiji glave i vrata.
Mnogi zahvati u usnoj šupljini, ždrijelu, hipofarinksu dobili su svoju intaoralnu lasersku i endoskopsku varijantu.
Metode: Autor prikazuje pregled objavljenih radova na temu ekscizije tumorskih promjena, benignih i malignih, sa dna usne šupljine, jezika, tonzila i nepca, koji prikazuju učinkovitost kirurgije laserom. Prikazuje se i upotreba lasera u endoskopskoj laserskoj terapiji divertikla cervikalnog dijela jednjaka, kao i endoskopski zahvati u području aerodigestivnog križanja kojima se odstranju kongenitalne ili stečene malformacije kao npr. ciste, membrane i ožiljne promjene. Autori se osvrću i na laserski asistiranu uvulopalatoplasiku (LAUP), operaciju ždrijela kod poremećaja spavanja.
Rezultati: Laserska kirurgija u području usne šupljine i ždrijela i aerodigestivnog križanja postala je ključna minimalno invazivna tehnika kako za kirurgiju malignih tako i benignih promjena. Ekscizije intraoralnih ili ždrijelnih promjena laserom pokazali su niz prednosti pred klasičnom kirurgijom: manji morbiditet, edem, krvarenje, bržu epitelizaciju i oporavak, te kraću hospitalizaciju.
Zaključak: Prikazano je iskustvo novih i poboljšanih tehnika laserske kirugije usne šupljine i ždrijela u liječenju malignih tumora, i benignih promjena. Kako otorinolaringolozi i kirurzi glave i vrata postaju sve iskusniji u korištenju lasera i kako naše znanje i sposobnost rastu tako i prednosti ovih zahvata postaju sve veće i brojnije u kirurgiji patoloških promjena usne šupljine i ždrijela.

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SUVREMENA ENDOSKOPSKA KIRURGIJA LARINKSA

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Anatomska i funkcionalna složenost područja glave i vrata stvorile su potrebu za preciznom i minimalno invazivnom kirurgijom kakva može biti jedino laserska endoskopska kirurgiju. Objedinjavanje endoskopa, mikroskopa i laserskog uređaja označilo je revoluciju u kirurgiji larinksa. Endoskopski mikrokirurgija primjenjiva je kod različitih patoloških stanja, od urođenih i stečenih malformacija, papilomatoze larinksa, funkcionalnih i organskih promjena na larinksu do dobroćudnih i zloćudnih tumora. Najčešće su u uporabi "cutting laseri" odnosno CO2 laseri, koji svojom visokom apsorpcijom u tkivima preko evaporizacije vrlo precizno izvršavaju kirurške zadaće. Preglednost i dostupnost područja je ograničena, a potreba za preciznošću izuzetno velika zbog čega se laserske zrake vrlo precizno fokusiraju preko mikromanipulatora.
Endoskopska laserska kirurgija malignih tumora larinksa može se s pravom svrstati u minimalno invazivnu kirurgiju koja je istovremeno maksimalno radikalna. Naravno, izuzetno je važno postaviti pravilne indikacije za ove kirurške tehnike. Suvremeni trendovi čuvanja organa odrazili su se i na kirurgiju larinksa. Proširenje primjene laserske endoskopske kirurgiju i kod uznapredovalih karcinoma larinksa pojavili su se u Europi zadnjih desetak godina. Iako su početni rezultati usporedivi s rezultatima otvorenih kirurških metoda, još uvijek je velik broj argumenta koji kompromitiraju mogućnosti i rezultate laserske kirurgije kod uznapredovale tumorske bolesti.
Kirurški postupci u području gornjih probavno-dišnih putova zahtijevaju specifičnu anesteziološku skrb, koja osigurava sigurnost, uspješnost i povoljan krajnji rezultat ovih zahvata. Usko i teško pregledno područje larinksa nametnulo je razvitak specijalnih anesteziooloških tehnika kao što su jet-anestezija, primjena laringealne maske kao i anestezija uz spontanu respiraciju.
Velika preciznost, minimalno oštećenje okolnog zdravog tkiva, nizak morbiditet, kratkotrajna hospitalizacija samo su neki od prednosti laserske endoskopske kirurgije larinksa. Tehnika se široka prihvaća, a svjedoci smo i svakodnevnih unapređenja kako samih laserskih uređaja, tako i indoskopskih pomagala što otvara još veće mogućnosti ove kirurgije.

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FUNKCIONALNA ENDOSKOPSKA LASERSKA KIRURGIJA NOSA I PARANAZALNIH SINUSA (FELSS)

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Specifični anatomski odnosi, kvaliteta tkiva kao i načela funkcionalne, minimalno invazivne kirurgiju nametnuli su potrebu primjene endoskopskih tehnika u području nosa i paranazalnih sinusa. Funkcionalna endoskopska kirugija nosa dobila je na kvaliteti primjenom suvremenih laserskih sustava. Njihova je primjena moguća kod skoro svih patoloških stanja, bilo da se radi o urođenim i stečenim malformacijama, kroničnim upalnim bolestima, benignim i malignim tumorima. Upravo je vrsta patologije, izuzetno dobro vaskularizirana tkiva i zahtjevnost prikaza određenih područja nosa i paranazalnih sinusa uvjetovala primjenu određenih laserskih sustava. Najčešće su u uporabi diodni laseri, Nd Yag te CO2 laseri. rinokirugiji CO2 laser. Endoskopski instrumeni su se prilagodili primjeni lasera tako da su dobili radne kanale za laserski aplikator. Uglavnom se koristi kontaktna tehnika.
Prednosti funkcionalne laserske endoskopske kirurgije nosa i paranazalnih sinusa (FELSS) mnogostruke su. Broj klasičnih endoskopskih zahvata je u nekim ustanovama smanjen i do 50 %. Intraopereativno krvarenje i trauma okolnog tkiva je minimalna. Neugodna tamponada nosa najčešće nije potrebna, a primjenom ove tehnike liječenje je svelo na jednodnevni boravak u bolnici.
Komplikacije nakon ovih kirurških zahvata su minimalne, osobito ako se preduzmu sve standardne mjere opreza i sigurnosti. Najozbiljnije komplikacije vezane su za rad u području rinobaze jer se dubinskih učinak laserske energije i optičke penetracije ne prepoznaju na vrijeme.

194 - OTOR

SUVREMENE RADIOLOŠKE PRETRAGE - PREDUVJET ENDOSKOPSKOJ KIRURGIJI NOSA I PARANAZALNIH ŠUPLJINA

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Konvencionalne radiografske snimke sinusa su inicijalne ili jedine snimke, a ako je klinički indicirano mogu biti praćene kompjutoriziranom tomografijom (CT) ili magnetskom rezonancijom (MR).
Mukozna površina i koštani okvir sinusnih šupljina su pogodni za pretragu CT-om.
Širenjem endoskopske sinusne kirurgije CT postaje najtraženija radiološka tehnika pregleda sinusa. Snimanje se vrši u dvije ravnine, aksijalno i koronarno, što omogućava dobar prikaz svih promjena u nosu i sinusima te na bazi lubanje. Nove generacije CT uređaja s višerednim detektorskim nizovima i spiralnim načinom snimanja (MDCT ili MSCT) daju još više mogućnosti jer se rekonstruiranjem u aksijalnoj, koronarnoj, sagitalnoj ili bilo kojoj drugoj ravnini dobivaju slike praktično iste kvalitete kao i u izravnom snimanju klasičnim CT uređajem. Uz to su moguće i različite trodimenzionalne rekonstrukcije (3D) te virtuelna endoskopija. Rutinski MDCT pregled treba imati aksijalne, koronarne i sagitalne rekonstrukcije maksimalne debljine 3 mm uz prikaz u dva različta prozora (za meka tkiva 150 do 400 sa centrom od 40 do 60 HU, a za koštane strukture i površinu sluznice 2000 do 4000 sa centrom od -100 do 300 HU). Korisne su, ali ne i obvezatne, 3D projekcije te endoskopski prikaz promjena u nosu i sinusima. Za razlikovanje mekotkivnih promjena i širenja u okolne strukture kao što je baza lubanje, orbita te ostale regije, neophodan je pregled uz aplikaciju jodnog kontrastnog sredstva. Promjene na mekim tkivima, osobito u dodirnim zonama prednje i srednje lubanjske jame, orbite, sinusa i struktura ispod srednje lubanjske jame najbolje se prikazuju MR pregledom. Standardni MR protokol za sinuse podrazumijeva koronarne projekcije u T1 i T2 mjerenoj slici, aksijalne u T1 mjerenoj slici te postkontrastne aksijalne i koronarne projekcije. Dodatno se još koriste sagitalni presjeci te presjeci sa saturacijom masti. Prednost MR tehnike je u boljem razlikovanju mekotkivnih promjena gdje se mogu prikazati vrlo sitni anatomski detalji te što nema ionizirajućeg zračenja bolesnika.
Prednost MDCT tehnike je vrlo kratko vrijeme snimanja, izvrstan prikaz koštanih anatomskih detalja te različite 3D i virtuelne endoskopske tehnike.
Snimke dobivene kod obje metode moguće je ispisati na filmu ili papiru odnosno izdati u digitalnom obliku na prenosivim medijima.

ENDOSKOPSKI ZAHVATI U DJEČJOJ KIRURGIJI

ENDOSCOPIC PROCEDURES IN PEDIATRIC SURGERY

25 - PEDI

A 5-YEAR EXPERIENCE OF A MINIMALLY INVASIVE TECHNIQUE FOR CORRECTION OF PECTUS EXCAVATUM IN CROATIA

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The aim of this study was to assess the results and experience with minimally invasive operation without medial incision and resection cartilages for correction of pectum excavatum.
From 2000 we made in our Hospital minimally invasive technique, Nuss procedure, for the correction of pectus excavatum. 75 patients were treated by minimally invasive technique. A convex steel bar is inserted under the sternum trough small bilateral incisions.
The steel bar is inserted with the convexity facing posteriorly, and when it is in position, the bar is turned over. A thoracoscope is necessary for this operative treatment. The authors recommend the use of a 5-mm trocar placed 1 or 2 intercostal spaces below the space that has been chosen for the pectus bar on the patient's right side. A thoracoscope provides excellent visualization of the pleural cavity, lung, and mediastinal structures. If necessary, the thoracoscope can be used bilaterally. Insufflating the pleural cavity with carbon dioxide is only rarely necessary; in most cases, controlled ventilation by the anesthesiologist with small tidal volumes results in limited lung expansion and good thoracoscopic visualisation of vital structures. After 2 years the bar is removed when permanent remolding has occurred.
Initial excelent results were maintained in 54 patients (normal chest), good results in 16 (mild residual pectus) and poor in 5 (severe recurrence requiring further treatment). The mean follow-up sinc surgery were 3 months to 3 years. Average blood loss was 25 ml. Average length of hospital stay was 8 days. Patients returned to full activity after 2 month. Complications were pneumothorax in 12 patients, pneumonia in 6 patients and displacement of the steel barr requiring revision in 2 patients. Poor results occurred because steel bar was too soft in 3 patients, and soft sternum in 2 patients with Marafan's syndrome.

186 - PEDI

LAPAROSKOPSKA APENDEKTOMIJA U DJECE: REZULTATI U 13 GODINA

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U ovom retrospektivnom pregledu prikazani su rezultati liječenja upale crvuljka laparoskopskom tehnikom u djece do 16 godina.
U periodu od ožujka 1994. do 31.12. 2005. učinjeno je ukupno 323 apendektomije laparoskopskom tehnikom. Laparoskopski je operirano 186 dječaka i 137 djevojčica. Srednja dob operirane djece je bila 11,6 godina (04 - 16).Preoperativno je provedena profilaksa metronidazolom . Akutna kataralno-flegmonozna upala crvuljka je nađena u 162 (50,1%) bolesnika, gangrenozni apendicitis je nađen u 82 (25,4%) bolesnika, a perforirani apendiks je nađen u 41 (12,7%) bolesnika. Inocenti apendiks je nađen u 25 (7,8%) djece. U 13 (4%) djece apendektomija je učinjena u intervalu nakon konzervativnog liječenja periapendikularnog indurata. Prosječno vrijeme operacije laparoskopskom tehnikom je bilo 46 minuta. U posljednjih 5 godina prosječno vrijeme operacije je bilo 27 minuta. Zbog nejasnih anatomskih odnosa učinjena je konverzija u 6 slučajeva.
Imali smo 17 (5,26) komplikacija . Intraoperacijske: u dva slučaju smo imali ozljedu donje epigastrične arterije
Poslijeoperacijske:4 infekcije rane,3 intraabdominalna abscesa,5 težih pareza crijeva,jedan rani adhezivni ileus,te dvije infekcije respiratornog trakta.
Vrijeme trajanja hospitalizacije iznosilo je 4.1 dana.
Laparoskopski apendektomija je sigurna i učinkovita operacija, koja uključuje sve prednosti minimalno invazivne kirurgije .

201 - PEDI

LAPAROSCOPIC APPENDICICECTOMY - METHOD OF CHOICE IN RECURRENT LOWER RIGHT ABDOMINAL PAIN IN CHILDREN

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Over a period of 3 years, we performed 12 laparoscopic appendiciceCtomies in children with chronic appendicitis. The clinical criteria for the diagnosis were recurrent lower right abdominal pain with at least two hospitalizations within one year prior to surgery, positive ultrasound finding (regional inflamatory changes in ileocoecal region, changes in the vault of appendix, coprolith in the lumen of appendix) with mild clinical presentation. In 8 of 12 children we performed single port supraumbilical video-assisted appendicicectomy, where appendix was mobilised and brought out through the port-wound, where actual appendicicectomy was performed. In 2 children additional port was necessary for the mobilisation of the appendix, while in two children complete 3-port appendicicectomy was performed. All children recovered without complication and were dismissed form the hospital within 24 hours after the surgery, with the full recovery within 4 days after the surgery and return to full-range motion within 7 days after the surgery.All appendices were subjected to the patohystological diagnosis. In 9 appendices coprolith was present in the lumen, with chronic inflammatory changes within the lumen and vault of appendix. In 2 children there was no intraluminal coprolith, but the vault was chronically inflammed. In one child PHD was normal. All children returned to normal life within 7 days of surgery and all twelve are simptomless in a follow-up period. Laparoscopic appendicicectomy in our hands proved to be safe method with short recovery period and therefore is method of choice in children with recurrent lower right abdominal pain.

ENDOSKOPSKI ZAHVATI U KARDIOVASKULARNOJ KIRURGIJI

ENDOSCOPIC PROCEDURES IN CARDIOVASCULAR SURGERY

73 - CARD

MINIMALLY INVASIVE CARDIAC SURGERY - CURRENT STATUS AND NEW DEVELOPMENTS

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Aim: Valvular heart operations have been traditionally performed through the complete median sternotomy with direct cannulation of ascending aorta and the right atrium or venae cavae. An alternative minimally invasive approaches were developed to reduce the trauma and allow faster recovery without jeopardizing surgical results for patients. We report our eight year experience with these procedures.
Methods: From January 1996 to December 2002, 2740 patients underwent minimally invasive valvular surgery (1103 aortic valve surgery and 1637 mitral valve surgery) at the Cleveland Clinic. The operations were performed through a 8-10 cm long skin incision, and partial upper sternotomy extending into the r fourth intercostal space.. Myocardial protection was accomplished with cold antegrade blood cardioplegia. The aortic valve was exposed through the oblique aortotomy extending into the non-coronary sinus of Valsalva. Mitral valve was exposed through the transseptal approach. The surgical procedure for the aortic valve was replacement in 64% of patients, while repair was accomplished in 23% of the patients. Aortic valve replacement was combined with the replacement of the ascending aorta in 13 % of patients. Mitral valve repair was performed in 91% of patients, 9% of patients required mitral valve replacement.
Results: There were 24 hospital deaths, accounting for hospital mortality of 0.7 %. Conversion to complete sternotomy was required in 1.5% of patients. Mean aortic occlusion time was 53 minutes; mean cardiopulmonary bypass time was 67 minutes. The postoperative stroke was observed in 2.7% of patients.
The mean time of postoperative ventilatory support was 4 hours. Blood transfusions were used in 9% of patients. Mean hospital postoperative stay was 6 days. The incidence of postoperative wound infection was 0.6%. The comparison with median sternotomy demonstrates a reduction in both postoperative length of stay and direct hospital costs.
Conclusions: Minimally invasive valve surgery represents a safe approach for the treatment of a variety of valve disorders and the disease of the ascending aorta. The comparison with median sternotomy demonstrates a reduction in both postoperative length of stay and direct hospital costs. The minimally invasive approach should be considered for all eligible patients with isolated valvular heart disease.

130 - CARD

ENDOSCOPIC RADIAL ARTERY HARVESTING REDUCES POSTOPERATIVE PAIN AND NEUROLOGIC COMPLICATIONS

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Aim: Endoscopic radial artery harvest provides beter cosmetic result without compromizing the quality of the graft. We sought to compare postoperative harvesting site neurologic and vascular outcome.
Methods: From 10/2002 until 10/2004, 50 patients were randomized to have their radial artery harvested for coronary bypass either endoscopically (group A, N=25) or conventionally (group B, N=25). Radial arteries were preoperatively evaluated by doppler echo. Neurologic status was assessed by a self reporting questionarre with a semiquantitative (1-5) scale. Vascular status was assessed by control echo.
Results: At an average follow-up of 37 months, patients undergoing endoscopic radial artery harvesting had less overall neurologic complications (11 vs 17 patients, $p=0.028$) and they were less severe (0.8 ± 1.1 vs 2.2 ± 1.2; $p<0.001$). Ulnar flow increase was similar among groups : 13.1 ± 5.43 cm/s in group A vs 15.9 ± 4.9 cm/s in group B ($p=0.147$) as well as ulnar artery diameter increase 0.29 ± 0.16 mm in group A vs 0.29 ± 0.26 mm in group B ($p=0.914$)
Conclusion: Endosopic radial artery is safe and doesn't compromize graft quality or forearm and hand circulation postoperativelly. Alongside a better cosmetic result, endoscopic artery harvesting reduces postoperative harvesting site pain and neurologic compications.

188 - CARD

ENDOSKOPIJA U VASKULARNOJ KIRURGIJI

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Endoskopija postupno zauzima sve veći prostor u vaskularnoj kirurgiji.
Prvi prodori u endoskopsko operiranje bilježimo u KB "Sestre milosrdnice" još 1992. godine primjenom angioskopije i kreiranja prvog premoštenja na arterijama donjih ekstremiteta metodom "in situ" u Hrvatskoj.
Angioskopija je učinjena uz 2,8 mm fiberoptički instrument kojim se vizualiziraju zalisci na velikoj veni safeni. Endoskopski instrument uz kameru ima irigacijski kanal koji služi za napinjanje zalistaka te na taj način omogućava retrogradno uvođenje valvulotoma nakon čije primjene vena safena magna ostaje u svom anatomskom položaju za kreiranje arterijske premosnice.
Slijedeća primjena endoskopije u vaskularnoj kirurgiji bila je primjena SEPS-a tj. subascijalnog podvezivanja perforantnih vena, što smo uveli u kirušku praksu 1998. godine. Postupak se primjenjuje u bolesnika s kroničnom venskom insuficijencijom kada su s jedne strane značajno insuficijentni perforatori uključeni u patofiziološki proces kronične venske insuficijencije, a s druge strane promjene na koži u smislu lipodermatskleroze i venskog ulkusa onemogućuju kirurški pristup na te perforantne vene. Endoskopski pristup kroz kožu proksimalnog dijela potkoljenice, koja nije zahvaćena degenerativnim promjenama, omogućava podvezivanje insuficijentnih perforatora bez ugrožavanja cijeljenja operacijske rane.
Slijedeća primjena endoskopije u vaskularnoj kirurgiji je primjena torakoskopije u simpatektomiji, koja na ovaj način predstavlja manje invazivni postupak s manjim rizikom od ozljede živaca u odnosu na klasični transaksilarni ili supraklavikularni postupak.
Na koncu, laparaskopsko operiranje obliterativnih promjena na aorti i posebno u aneurizama abdominalne aorte i zdjeličnih arterija predstavlja danas jedan od prominentnih pristupa u vaskularnoj kirurgiji, koji za sada nije predmet rutinskog operiranja. U klinikama koje favoriziraju ovaj način operiranja prikazuju rezultate koji su usporedivi ili čak bolji od klasičnog kirurškog zahvata ili EVAR-a (endovaskularnog liječenja aneurizme). Dva su osnovna pristupa: postupak totalne laparoskopije i postupak laparoskopije uz minimalnu laparotomiju.
Laparoskopski postupak danas se primjenjuje kao metoda izbora u eliminiranju jednog od glavnih komplikacija EVAR-a, a to je unutrašnje krvarenje ili "endoleak" tipa I i III.

ENDOSKOPSKI ZAHVATI U ORTOPEDIJI I TRAUMATOLOGIJI

ENDOSCOPIC PROCEDURES IN ORTHOPAEDICS AND TRAUMATOLOGY

22 - ORTH

OUR EXPERIENCE IN HIP ARTHROSCOPY

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Purpose: Hip arthroscopy is young endoscopic surgical procedure that developed at the end of the last century.In University Hospital Split first hip arthroscopy was preformed in 2003.Indicationes for hip arthroscopy were loose bodies,osteoarthritis,avascular femoral haed necrosis,chondral and labral injuries and non specific hip pain.
Material and methods: In period from 2003.to 2004.we preformed 76 hip arthroscopies.Vast majority of operationes(in 49 patients)was preformed due to degenerative osteoarthritic changes in age group from 39 to 76 years.In 5 patients hip arthroscopy was done because of posttraumatic loose bodies.Avascular femoral haed necrosis was indication for hip arthroscopy in 2 patients.Chondral and labral injuries was diagnosed in 18 patients.After full diagnostic workaut in 2 patients that had non specific hip pain we preformed hip arthroscopy.
Results: In over 75% of all operated patients full recovery was achieved.Soon after the operation they returned to their normal activity and still do not have any pain.Satisfactory results have been achieved in 9 patients who were operated due to degenerative osteoarthritic changes and in other 9 patients symptoms returned soon after surgery.
Conclusion: Our first expiriance in hip arthroscopy is encouraging.This is a demanding procedure that is almost impossible to perform withaut proper instruments(Extension table,C-arm X-ray device,hip arthroscopic instruments)Beside hardware the surgion has to know surgical anatomy in hip region.Hip arthroscopy is very convenient for patients because the hospital stay is short(1-5 dayes) and phisical therapy is started immidetly after surgery.

46 - ORTH

REKONSTRUKCIJA TIBIJALNOG PLATOA ASISTIRANA ARTROSKOPSKI I RTG, MINIMALNO INVAZIVNA

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Autori će u svom izlaganju razložiti način artroskopski i Rtg asistirane rekonstrukcije kod prijeloma tibijalnog platoa minimalno invazivnom tehnikom repozicije uz kontrolu okom, tj artroskopom i Rtg istovremeno, kao i tehnike fiksacije nakon precizne i egzaktne repozicije bilo kanuliranim vijcima ili LCP pločom postavljenom MIPO tehnikom.

47 - ORTH

ARTROSKOPSKA REKONSTRUKCIJA PREDNJEG KRIŽNOG LIGAMENTA TETIVAMA SEMI-T I GRACILISA

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Autori će u svom radu prikazati minimalno invazivnu tehniku rekonstrukcije prednjeg križnog ligamenta tetivama semitendinosusa i gracilisa, te fiksacije presadka Transfiksom femoralno i interferentnim vijkom tibijalno. Tehnika omogućava izrazito skraćenje bolničkog liječenja kod ovakovih bolesnika, kao i izrazito skraćenje oporavka istih, kao npr. hod s potpunim opterećenjem već od trećeg postoperacijskog dana. U izlaganju će biti prikazana operacijska tehnika kao i prikazi operiranih bolesnika.

96 - ORTH

VIDEOSKOPSKI ASISTIRANI PERKUTANI ŠAV AHILOVE TETIVE

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Background: Unsatisfied with open procedure for Achilles tendon rupture because of high incidence of sural neural damage, contracture and infection we have developed new minimale invasive method.
Material and metodhs: In five years period we have operated 64 injured using our new technique. Our technique is a modification of percutaneus repair. After 2 cm transversal incision made in localisation of rupture, dissector with 5 mm videoscope is inserted in subcutaneus space. Preparation of disrupted tendon for percutaneus suture is accomplished with dissection under videoendoscope. Sutures are inserted and tightened in created space. Sural nerve is often easily visualized and damage is avoided.
Results: Operated 64 patients were with few complications. We have 1 rerupture and 1 contracture. In this group of patients rehabilitation was better than in open operated patients.
Conclusion: Our results with minimal invasive approach to Achilles tendon rupture are promising. Further prospective studes are expected to evaluate this tehnique.

116 - ORTH

ANATOMIC DOUBLE- BUNDLE ACL RECONSTRUCTION

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Introduction: ACL consists of two functional bundles, the anteromedial (AM) bundle and the posterolateral (PL) bundle. Current operative techniques which only reconstruct the AM bundle did not completely reproduce the anatomy and function of the ACL. These techniques control the anteroposterior stability but are insufficient in providing rotatory stability. To control the rotator stability many authors suggest reconstructing the PL bundle also.
Materials and methods: In our department we operated 79 patients, 34 with anatomic double bundle technique, 7 we reconstructed only the injured AM bundle and preserved the intact PL bundle, and 38 with single bundle technique.
We started with harvesting and preparing of double-standered gracilis and semitendinosus.
After intraarticular preparation we drill the femoral PL tunnel, femoral AM tunnel and then the tibial PL and AM tunnels. Then we introduce the grafts and fix the PL at the femoral side with endobutton, AM with Rigidfix. On the tibial side we fix both grafts with bioabsorbable screws.
Results: The main operating time is 82 minutes, (20 minutes longer than that for single-bundle). Hospitalization is the same (1-2 day).We had no infection, thrombosis or revision.
Conclusion: Rotation stability should be better with anatomical double-bundle ACL reconstruction, but the optimal method remains controversial, so further clinical and other studies is needed to achieve better outcomes.

ENDOSKOPSKI ZAHVATI U NEUROKIRURGIJI

ENDOSCOPIC PROCEDURES IN NEUROSURGERY

3 - NEUR

ENDOSCOPIC TRANSSPHENOIDAL PITUITARY SURGERY

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Aim of the study: Endoscopic surgery has been used in our Clinic since 1996 as assistence in microneurosurgical procedures. In the same way was the endoscop used in transsphenoidal pituitary surgery, but from the begining of 2004 we started with "pure" endoscopic surgery. We shall show our expirience with the first ten patients to demonstrate our way of operating.
Patients and methods: The first ten patients were 6 males and 4 females with 4 cromophobic, 2 somatotropic tumors an 2 prolactinoma. At the begining we chose the patients with huge sphenoid sinus and intrasellar microadenomas. We used unilateral approach through one nostril and sphenoid ostium where there was enough space to introduce endoscope and operating instrumnents. In four cases we used bilateral approach, placing endoscope and suction device through the left nostril (ORL) and surgical instruments through the right nostril (neurosurgeon).
Results: The first control was after a month using CT scan, and MRI according to endocrinological status. There were two reccurent tumors. One was cromophobic minimal and were just observing it and the another was treated by gamma knife. There were no other complications.
Conclusion: Endoscopic pituitary surgery is performed through a natural nasal air pathway without any incisions. A 4-mm endoscope is placed in front of the tumor in the sphenoidal sinus and the tumor is removed with specially designed surgical tools. Postoperative nasal packing is not necessary and postoperative discomfort is minimal so the hospital stay lasts 3 days.

17 - NEUR

ENDOSCOPIC ENDONASAL TRANSSPHENOIDAL APPROACH FOR PITUITARY ADENOMAS

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The purpose of this paper is to describe our experience with endoscopic technique of pituitary tumor resection.
Objective: Endoscopic endonasal transsphenoid surgery has recently been recommended as a minimal invasive surgical technique for the removal of pituitary tumors.
Methods: From 2004. to September 2006. a total of 36 consecutive patients with pituitary tumors underwent endoscopic endonasal transsphenoid surgery. We employed 0° and 30° rigid endoscopes, 18-30 cm in length and 4mm in diameter with an outer sleeve for irrigation and secured to a holder.
Results: The advantage of this technique has been represented by an easier access to the lesion, especially in recurrent tumors, a more complete excision of tumors, decrease of post surgical complications and reduction of hospitalization time as well as cost reduction. In a single case of a patient with prolactine secreting macroadenoma we have experienced the complication in a sense of delayed bleeding, fourteen days after surgery, from a minor branch of sphenopalatine artery which was successfully treated by the posterior nasal tamponade.
Conclusion: In nowadays endoscopic endonasal transsphenoidal approach in pituitary surgery can be safely employed in the vast majority of the sellar and suprasellar lesions and is characterized to be less traumatic that the traditional microsurgical approach.

62 - NEUR

COMPLICATIONS OF NEUROENDOSCOPY

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Aim: Despite large knowledge base exists, it is important to recognize and share experience to avoid potential complications of relatively simple surgical procedure.
Methods: Authors presents pitfalls end complications experienced in 78 operations during a period of eight years. 73 endoscopic third ventriculostomies has been done and five endoscopic fenestrations of symptomatic septum pellucidum cysts.
Results: In 3 cases we had postoperative cerebrospinal fluid (CSF) infection successfully treated with antibiotics, without any postoperative sequellas. We had two cases with rare complication of transitory postoperative bilateral blepharoplegia with spontaneous regression if symptoms within two months.
Fortunately we did not experienced postoperative local CSF leakage. We had 14 cases of minor intraoperative intraventricular bleeding dealed with extensive rinsing and balloon catheter compression of bleeding vessel. In neither one patient there was no need for postoperative external ventricular drainage catheter. One patient was reoperated two months after endoscopic third ventriculostomy by inserting ventriculoperitoneal shunt.
Conclusion: Superb operative technique should be performed to protect neurovascular structures such as hypothalamic region, basilar artery complex or fornix. Risk of intraoperative bleeding should be minimized. In most of the cases intraventricular bleeding were controlled with bipolar coagulation or compressing a bleeding vessels with the inflated balloon catheter.

93 - NEUR

ENDOSCOPIC THIRD VENTRICULOSTOMY WITH ULTRASONIC CONTACT PROBE

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The indications for neuroendoscopy are constantly increasing. One of the most frequently used indications in neuroendoscopy is third ventriculostomy for obstructive hydrocephalus (ETV). This technique is gained popularity and widespread acceptance during past years. There are few techniques that are employed to open the floor of the third ventricle: blunt opening, laser coagulation and electrocoagulation.
With experts from "Brodarski institut" authors constructed special ultrasonic contact probe (sonotrode) for endoscopic procedure and opening the floor of the third ventricle. High energy ultrasound seems to be the ideal tool for premamilary membrane opening. The sonotrode is made of titanium wire with small diameter (1,6 mm), and have minimal thermal effect on the surrounding tissue.
Authors present the technical characteristics of the ultrasonic contact probe for the third ventriculostomy and clinical experience in treating hydrocephalus and related conditions.

233 - NEUR

ENDOSKOPIJA U KIRURGIJI LUMBALNOG DISKA

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Prva lumbalna perkutana endoskopska diskektomija (LPED) izvedena je u Berlinu 1988. godine, a godinu dana kasnije prvi postupak endoskopske diskektomije izveden je i u Klinici za neurokirurgiju Kliničke bolnice "Sestre milosrdnice" u Zagrebu. Od tada je u Klinici tim postupkom operirano preko 300 bolesnika sa zadovoljavajućim rezultatima, koje smo iznijeli i na svjetskom neurokirurškom kongresu u Berlinu 2000. godine.
Postupak lumbalne perkutane endoskopske diskektomije izvodi se pod kontrolom RTG aparata te su bolesnik i operater izloženi iradijaciji. Stoga se taj postupak sve manje izvodi, usprkos uspješnim rezultatima koji se prema

našoj analizi kreću do 80%.
Tehničkim razvojem medicinskih instrumenata te daljnjim razvojem endoskopije, od 2002. godine u Klinici za neurokirurgiju izvodi se endoskopski postupak bez intraoperacijske RTG kontrole. Tako smo kod pedesetak bolesnika izvršili dekompresiju intervertebralnog diska postupkom asistirane endoskopije.
Kako su postupci mikrokirurškim pristupom sve više prisutni u neurokirurškoj praksi, tako da prilikom postupka imamo trodimenzialnu sliku i prikaz rada, postupno smo suzili mjesto endoskopije u rutinskom operacijskom postupku kod hernijacije lumbalnog diska. Prilikom operacije hernijacije lumbalnog diska endoskopiju koristimo u svrhu eksploracije intradiskalnog prostora, tj. na željenoj dubini, gdje nam je operacijski mikroskop manje pouzdan.

ANESTEZIJA KOD ENDOSKOPSKIH ZAHVATA

ANESTHESIA DURING ENDOSCOPIC PROCEDURES

85 - ANES

LAPAROSCOPIC OPERATION IN OLDER ADULTS

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Life expectancy has increased over the previous 100 years. Age is one of the main factor affecting rates of morbidity and mortality after surgery, although the age are not the formal contraindication for surgery. Elderly patients frequently suffer from significant co-morbid disease and limited functional reserve that may be associated with increased postoperative complication and more frequent conversion to open surgery. During the past 15 years laparoscopic surgery has became the fastest-growing discipline. There are many recognized benefits of laparoscopic procedures. The primary benefits to patients are smaller scars decreased postoperative pain and more rapid return to normal activity Because of the reduced traumatic insult of laparoscopic operation, many anesthesiologist and surgeons believe that these procedures are ideally suited for older patients whose recuperative powers are already diminished. These articles provide an overview of the current role of laparoscopic surgery in older patients.

94 - ANES

ANAESTHESIA FOR THE BARIATRIC PATIENT

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Aim: To present a short review of the current literature on anaesthesia for the bariatric patient.
Methods: A Medline and Current Contents search from 1996 to 2006, using key words: "obesity, bariatric surgery and anaesthesia" .
Results: Database search indicates an increased prevalence of obesity and, consequently, bariatric procedures. Morbidly obese patients constitute a specific subgroup of patients, with characteristic pathophysiological profile and altered pharmacokinetics of anaesthetics, analgetics, and other perioperative medications. Obesity is associated with increased overall and perioperative mortality and is an independent risk factor for intensive care unit death. In the immediate postoperative period the incidence of critical respiratory events is twice higher in obese patients. Postoperative complications are due to alterations in respiratory, cardiovascular, gastrointestinal, immune, haematologic and metabolic function caused by a chronic inflammatory state which characterizes obesity. Specific complications include higher incidence of respiratory critical events in patients with obstructive sleep apnoe, difficult intubation in patients with large neck circumference, high incidence of pulmonary embolism, which is the most common cause of postoperative mortality and pressure-induced rhabdomyolysis. Atypical anatomy makes vascular access and regional anaesthesia procedures more difficult in some of the patients. The literature on the impact of specific anaesthesiological procedures on postoperative outcome in bariatric patients is scarce, and recommendations with high level of confidence are still lacking.
Conclusion: Obese patients, some of whom might become bariatric surgical patients, constitute a new subpopulation of patients in anaesthesiological practice assocciated with higher perioperative mortality than non-obese patients. Knowledge of the pathophysiological derangments specific of obesity helps to predict and treat perioperative complications, but recommendations for anaesthesiological managment of bariatric patients with high grade of confidence are not available yet.
Reference: 1. Schumann R. Jones SB. Ortiz VE. Connor K. Pulai I. Ozawa ET. Harvey AM. Carr DB. Best practice recommendations for anesthetic perioperative care and pain management in weight loss surgery. Obesity Research. 13(2):254-266, 2005 Feb.
2. Pieracci FM. Barie PS. Pomp A. Critical care of the bariatric patient Critical Care Medicine. 34(6):1796-1804, 2006 Jun.

119 - ANES

ANESTEZIJA PATOLOŠKI PRETILIH BOLESNIKA ZA OPERACIJU LAPAROSKOPSKOG ZAOMČAVANJA ŽELUCA PRILAGODLJIVOM VRPCOM

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Cilj: Prikazati klinički tijek i specifičnosti anesteziranja bolesnika za operaciju laparoskopskog zaomčavanja želuca prilagodljivom vrpcom.
Metode: Retrospektivna studija u kojoj je korištena arhivirana medicinska dokumentacija
Rezultat: Naša iskustva temelje se na anesteziranju 31-og patološko pretilog bolesnika za navedeni operativni zahvat. Od toga je bilo 21 žena i 10 muškaraca u dobi od 21 do 64 godina, srednje vrijednosti BMI 47,1 (±5,98) kg/m^2 .Specifičnosti anesteziranja ovih bolesnika uvjetovane su promjenama u njihovoj respiraciji, kardiovaskularnom sustavu, koagulaciji, farmakokinetici lijekova, imunološkom sustavu i metabolizmu, kao i u komorbiditetu. U našoj skupini 30% bolesnika boluje od diabetes mellitusa, 43% su liječeni hipertoničari, a u 10% prisutna je koronarna bolest. Svi su primili tromboembolijsku profilaksu niskomolekularnim heparinom večer prije zahvata, te elastične zavoje na noge ujutro na dan operacije. U premedikaciji je korišten midazolam intramuskulano doziran na osnovi idealne tjelesne težine (IBM). Izbor tehnike indukcije anestezije ovisio je o procjeni anesteziologa i nije zabilježena niti jedna otežana intubacija ili aspiracija. Anestezija je održavana balansiranom anestezijom (kombinacijom volatilnih ili iv anestetika i fentanyla). Za antibiotsku profilaksu korišteni su cefazolin 1 g ili cefuroksim 1,5 g po 3 doze u prva 24 sata. Obavezni monitoring je uključivao: EKG, neinvazivno mjerenje arterijskog tlaka, pulsni oksimetar, EtCO2, tidal volumen, minutni volumen, vršni i srednji tlak u ekspiriju, a u pacijenata sa značajnim komorbiditetom (ASA III) postavljen je i centralni venski kateter i kanalirana arterija. Insufliranje pneumoperiteoneuma nije bilo praćeno značajnim kliničkim promjenama u respiracijskim i kardiovaskularnim parametrima. Prosječno trajanje operacije je 120 (±27,6) minuta 29 bolesnika je probuđeno i ekstubirano u sali i potom prevezeno u Jedinicu intenzivnog liječenja (JIL). Vrijeme provedeno u JIL-u variralo je između 3 i 24 sata. Dvojica bolesnika zahtijevala su kontroliranu mehaničku ventilaciju u JIL-u tijekom 3 sata. U jednog bolesnika došlo je do razvoja mikroembolije pluća četvrti dan nakon operacije zbog čega je pacijent s kirurškog odjela prebačen na odjel interne medicine.
Zaključak:Operacija laparoskopskog zaomčavanja želuca prilagodljivom vrpcom je postupak niskog anesteziološkog rizika. Međutim, patološka pretilost je povezana s većom incidencijom perioperacijskih respiracijskih i tromboemboličkih incidenata, te stoga preporučujemo anesteziološki nadzor nakon operacije i precizni protokol tromboprofilakse.

POSTERI / POSTERS

150 - EDUC

RAZVOJ LAPAROSKOPSKE KIRURGIJE U KB MOSTAR

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Prva laparoskopska operacija u na Klinici za kirurške bolesti i urologiju KB Mostar je učinjena 25. studenog 1995. god. Po našim saznanjima to je prva laparoskopsta operacija u Bosni i Hercegovini. Danas su takve operacije svakodnevnica i standard za određene kirurške procedure, kako u našoj tako i u većini kirurških ustanova na našim prostorima.
Imajući u vidu specifičnosti laparoskopske metode u; nabavci opreme, edukaciji kadra, te stjecanju iskustva osobito u prepoznavanju i načinu rješavanja komplikacija, njen razvoj nije protekao bez poteškoća.
Cilj rada je sveobuhvatno analizirati razvoj laparoskopske kirurgije u KB Mostar od njenog začetka do danas. U radu je osobita pažnja posvećena prezentacijii rezultata o broju i vrstama operacija, te komplikacija i načinu njihovog rješavanja.
Za postignute rezultate možemo reći da odgovaraju rezultatima koje navode razni svijetski autori u novijoj literaturi

162 - EDUC

EDUKACIJA U LAPAROSKOPSKOJ KIRURGIJI: IZGRADNJA ZNANJA U LABORATORIJIMA ZA UČENJE

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Inovativan razvoj medicinske tehnologije, nove sofisticirane metode liječenja te povećane potrebe za bolničkim managementom donijele su veliku potražnju za novim znanjima, te sukladno tome, novim mogućnostima učenja. Poznato je da su trajanje operacije, jatrogene ozljede i komplikacije u endoskopskoj kirurgiji povezane s iskustvom operatera i tzv. "krivuljom učenja". Zato suvremeni simulatori moraju omogućiti realističnu simulaciju tkiva i laparoskopske instrumente koji daju povratnu informaciju o sili i prenose informaciju o opipu. Mnogo klinika i laboratorija u svijetu danas intenzivno radi na sustavima za treniranje minimalno invazivne kirurgije, kroz tzv. "sustav prividne stvarnosti" ("virtual reality systems"). Za uspješno planiranje kirurških procedura često je potrebno imati individualne anatomske modele za određenog pacijenta. Današnji sustavi koriste poboljšanu realnost za prikaz lokacije endoskopskih instrumenata koji su superponirani na video sliku pacijenta. Navedeni sustavi omogućuju i vođenje instrumenata u skladu s isplaniranom trajektorijom. Samo pravilna edukacija te visoka stručnost cjelokupnog kirurškog osoblja dopušta obavljanje najsloženijih zahvata kod djece i odraslih, uz najmanji mogući broj komplikacija.

8 - ABDO

SIMULTANEOUS ACCRET UMBILICAL HERNIA REPAIR AND LAPAROSCOPIC CHOLECYSTECTOMY: CASE REPORT

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Aim: to represent an interesting simultaneous operative procedure; accret umbilical hernia repair and laparoscopic cholecystectomy performed in General Zospital Zabok; 08 / 2006.
Method and operative procedure: a 54-yr-old female came to our hospital for treatment of umbilical hernia and symptomatic gallstones. One year ago she noted umbilical defect, and is suffering from intermittent biliary colic since 06 / 2001. Clinical examinations are as follows: blood group B rh +, blood count, chest X-rays and ECG showed physiological results. Abdominal ultrasound: chronic cholecystitis; solitary gallblader concrement measured to be 1x2 cm. Normal ultrasound values of other abdominal organs.
Abdominal wall ultrasound scan presented umbilical hernia meassured to be 3x3 cm with underlaying small bowels

infra and right paraumbilical. Small bowels seamed to be smootly conected to hernial sac; accret hernia.
After described clinical examination we performed supraumbilical transverse 3,5 cm incision. Surgical preparation of hernia passed without complication. Hernial ring meassured to be only 2 cm in diameter. After herniotomy omental adhesions were ligated and resected. Next step was to divide and prepare small bowels from hernia sac also passed without complications. Umbilical hernia was then resected and temporarely closed . After pneumoperitoneum (Verres needle, 12 mmHg) first trocar was placed throughout hernial ring in abdominal cavity. Procedure was performed without complications. Small bowells were free from adhesions. Three other trocars were placed on standard positions and common cholecystectomy ended without complication. Finaly we repaired umbilical defect by creating a tissue duplicature with resorptive suttures.
Results: after 67 minutes described operative procedure ended with satisfactory result. Postoperative period passed without complication and patient was discharched from hospital on a 4 th postoperative day.
Conclusion: simultaneous accret umbilical hernia repair and laparoscopic cholecystectomy was shown to be the best way to treat our 54-old female patien.

12 - ABDO

ACUTE APPENDICITIS AND ILEAL PERFORATION WITH A TOOTHPICK TREATED BY LAPAROSCOPY: A CASE REPORT

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A 69-year-old man underwent an emergency laparoscopic procedure after the acute appendicitis diagnosis has been established. Laparoscopic exploration showed inflamed appendix and perforation of terminal ileum with a swallowed part of the wooden toothpick. The treatment consisted of typical laparoscopic appendectomy and laparoscopic removal of the foreign body, followed by laparoscopic closure of the perforation site and lavage of the abdominal cavity. The postoperative course was uneventful and the patient was discharged from the hospital on day 3 after the operation.

16 - ABDO

LAPAROSCOPIC SUBTOTAL GASTRECTOMY FOR GASTRIC CARCINOMA TREATMENT

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Laparoscopic surgery of the stomach is not well accepted in the patients with malignant disease. In this paper, we are showing our first experiences with this procedure in two patients with the early stage of the gastric carcinoma. First patient was a 57 year old man who had some gastric symptoms for a wile. The other patient was a 73 year old man who has had ulcer disease 52 years ago. Laparoscopic subtotal gastrectomy with omentectomy and Roux-en-Y reconstruction of the alimentary tract was performed with both patients. Pathohystological analysis of the resected part of the stomach showed the early stage of the gastric adenocarcinoma without methastases in the lymphonodes around the stomach and any pathological changes in the omentum for both of the patients. There were no complications during postoperative period. First patient was released from the hospital after nine and other after twelve days. They were obliged to visit the oncologist for oncological therapy. All oncological principles were satisfied with laparoscopic subtotal resection with good and fast postoperative recovery without complications.

21 - ABDO

KOMPLIKACIJE LAPAROSKOPSKE HOLECISTEKTOMIJE

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Introductions: The beginning of the laparoscopy is associated with George Kelling, who, in 1901 made an endoscopic survew of a live dog's stomach, after he had blown it in with air, and published that at German Biology and Medicine Association's experts meeting.
German gynecologist Kurt Semm, in 1983, at his clinic in Kiel, made the first laparoscopic appendectomy. The first laparoscopic holecistectomy on human was executed by German surgeon E. Muhe in Kreiskrankenhaus hospital in Boblingen, in June 1985.
Mortality and number of complications at laparoscopic holecistectomy are less than at open operations. While the mortality at open holecistectomy was extremely high during the middle century, in the eighties it came down to 0-1,8%, and most frequently it was bellow 0,5%. At laparoscopic holecistectomy it was lower, at the rate of 0-0,15%.
Material i methods: The first laparoscopic surgery in HN Canton dates from l999. We made analyses of two institutions: General Hospital Konjic and South Camp Hospital Mostar (Juzni logor Mostar). In those two institutions, in the period of 2001-2006, there were 846 laparoscopic operations in total, what makes 10.5% of total surgery interventions. Most of them, it was laparoscopic holecistectomy.
Usual pre-surgery preparation meant the next diagnostic procedures:
- anamnesis
- clinical survey
- laboratory results (KKS, Se, hepatogram, mineralogram , proteinogram)
- Rtg pulmo et cor
- Ultrasound survey of hepatobiliar trackt
- EKG and internist's opinion
- KG i Rh factor, with obligatory inter reaction with two doses full of blood

Each patient had compulsory included Clivarin.
Results: At our material we had 15 complications in total, or 1,77% and they were:
- 5 bleedings from the lodge, or 0,5%
- 4 wounds of the gallbladder canal, or 0,47%
- 4 foreseen holedoholitiazes, or 0.47%
- 1 perforation of duodenum, or 0,12%
- 1 partial mesenterial thrombosis, or 0,12%

We had three lethal results, or 0,35%
All the complications were discovered post-operatively. The reintervention was executed in all cases. In the cases with bleedings from lodge, hemostasis were done, using one of the methods to stop bleeding (lavage with warm physiological moisture, applied homestatics agents in lodge). In most of the cases we had coagulation mechanism in disorder, what was not pre-operationally diagnosed. Autopsy verified hard liver cirrhosis with coagulopathy (alcoholic cirrhosis).
In all cases of wounded common gallbladder canal, the operative reconstruction was made. In two cases, in which there were incomplete cross section cut, suture holedohus through T drain was done. In two cases, with completely cut hepaticocholedochus, the reconstructions were made using drainage according Pradery (review).
In all cases of wounded gallbladder canal the operative results were very serious: (acute holecistis, chronic, atrophied and twisted gallbladder with fibrosus in hepaticus yard.
In cases of overlooked choledocholithiasis, two cases were solved by open method and two endoscopic (ERCP).
At the patients with laesio duodenum, on the third day a picture of acute abdomen developed. After the reintervention, it comes to cardio circular decomposition and lethal result.
A female patient that was operated because of mesenteric thrombosis, reported to the clinic on the eight post operative day, because of strong sharp pain in her stomach. Urgent operative intervention was made, with the resection of abut three cm of the small intestine (ileum). After the recovery, she was treated at the angiologic department, with repeated DVT of the lower extremities.
In eight cases, or 53,3%, of mentioned complications, the operators were surgeons, who were, practically, in a phase of education on laparoscopic surgery (less than ten independent self performed laparoscopic operations).
Conclusion: According to our experiences, the following conclusions can be carried out:
-At all patients, being prepared for laparoscopic operation of gallbladder, it is necessary to do coagulogram.

-At all patients with acute inflammation of gall and at those with chronic holecistitis followed by frequent exarcerbatio, it is obligatory to do CT frequently, with contrast review of the gall canals, and MR, if necessary.
- At all patients, that had episodes of yellowness, it is obligatory to do ERCP.
- Surgeons education on laparoscopic surgery is obligatory, preferring work on simulators (robot, phantom), avoiding education on patients.
- Laparoscopic surgery can be practiced only by surgeons with serious experience in classic surgery (ability to solve complications)

34 - ABDO

PATIENT WITH EXACERBATION OF CHRONIC CHOLECYSTITIS AND CHRONIC APPENDICITIS (APPENDICHOLITHIASIS) - CASE REPORT

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Objective: Appendicitis and cholecystitis are very often conditions in abdominal surgery.However, they are seldomly found in one patient simultaneoulsy.
We present an interesting case of exacerbation of chronic cholecystitis and chronic appendicitis in one patient.
Methods: In March 2006, a 34-year-old man was admitted to our hospital due to abdominal pain. He had persisting abdominal pain foe the last few days, localized in right abdomen. In his medical history, patient was hospitalized several times because of acute cholecystitis, and was treated conservatively. Last, he was hospitalized because of acute pancreatitis in January 2006. On the day of admission, physical examination indicated exacerbation of chronic cholecystitis and some mild pain on palpation in ileocoecal region. There were no signs of acute abdomen. Ultrasound examination showed a cholelithiasis, and calculus in ileocoecal region, most probably in appendix. 15 days after admission, we performed a laparoscopic cholecystectomy and appendectomy. Patohistological findings confirmed exacerbation of chronic cholecystitis and chronic appendicitis. Patient was discharged in good condition, 6 days after. He remains asymptomatic on regular control examinations.
Conclusion: In this case, we present a very rare condition of chronic cholecystitis and simultaneous chronic appendicitis. Abdominal pain was caused by an exacerbating inflammation of gall bladder. The pain and other subjective problems resolved after laparoscopic surgical procedure.

42 - ABDO

MAJOR COMPLICATIONS DURING LAPAROSCOPIC CHOLECYSTECTOMY

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The aim of this study is to report on an institutional experience with the laparoscopic cholecystectomy management, during the first 13 years of laparoscopic cholecystectomy in Department of Surgery General Hospital "Dr. J. Benčević" in Slavonski Brod. Data were collected retrospectively, from 18.02.1993. to 17.02.2006. In that period we operated on 6874 patients for symptomatic cholelithiasis. There were 5274 female and 1600 male patients (ratio 3.3 : 1). 5458 of them were operated on by laparoscopic procedure (79.4%), 248 laparoscopic procedures were converted to open surgical procedures (3.6%) and 1168 non selected patients were operated on by means of open surgical procedures (17%).
During the first 13 years of laparoscopic cholecystectomy, we had 17 (0.31%) bile duct injuries, 2 (0.035%) bowel injuries and we had no injuries of great blood vessels.
The authors will discuss about major - life threating complications during laparoscopic cholecystectomy; their presentations, incidence and management.

51 - ABDO

LAPAROSKOPSKO LIJEČENJE PERFORIRANOG DUODENALNOG VRIJEDA

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Cilj: Retrospektivna klinička analiza liječenja perforiranog duodenalnog vrijeda s laparoskopskom intrakorporalnom suturom mjesta perforacije.
Metode: Laparoskopska operacija kod bolesnika sa klinički i radiološki dokazanom perforacijom šupljeg organa abdomena. Izvodi se intrakorporalna sutura perforacijskog otvora sa resorptivnim materijalom i lavaža abdomena sa fiziološkom otopinom od 6 do 10 litara bez drenaže abdomena. Operativni se zahvat izvodi sa 3 do 4 troakara. Svi su bolesnici poslijeoperacijski liječeni inibitorima protonske crpke, te antibiotskom terapijom Cefotaksim i Metronidazol, a kod starijih je provođenja tromboprofilaksa sa Fragminom.
Rezultati: U retrospektivnoj kliničkoj analizi u razdoblju od 2003. do 2005. godine analizirani su operirani bolesnici zbog perforiranog duodenalnog vrijeda. Bilo je 9 žena s prosječnom dobi od 60 godina (raspon 22 - 83 godine) i 12 muškaraca prosječne dobi 49 godina (raspon 24 - 80 godina). Svi su bolesnici operirani unutar 12 sati od početka bolesti. Operativni se zahvat izvodio sa 3 troakara kod 10 pacijenata, a sa 4 kod ostalih. Toaleta trbušne stijenke urađena je sa 6 do 10 litara fiziološke otopine. Prosječno trajanje operacije bilo je 70 minuta (raspon 55 - 110 minuta). Prosječna je hospitalizacija 7 dana (raspon 6 - 24 dana). Kod 1 bolesnika urađena je konverzija radi lokalnog kaloziteta i krvarenja iz postavljene suture. Kod 1 bolesnika u poslijeoperacijskom je razdoblju nastao subfrenični apsces, koji je zahtijevao perkutanu drenažu pod kontrolom CT-a. Drugih značajnih komplikacija nije zamjećeno.
Zaključak: Perforirani duodenalni vrijed je najčešći razlog za kirurško liječenje peptičkog vrijeda. Laparotomija sa suturom je još uvijek najčešći način liječenja, a laparoskopski pristup nudi isti tretman sa svim prednostima minimalno invazivne kirurgije.

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ADVANTAGES OF LAPAROSCOPIC APPENDECTOMY IN RELATION TO OPEN APPENCEDTOMY IN OUR PRACTICE

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The method of laparoscopic appendectomy on Surgical Department of Cantonal Hospital "dr. Irfan Ljubijaknic" in Bihac has been performed since 2000.
This paper analyzes the period 01 January 2005 - 31 September 2006. Our experience in comparing laparoscopic and open appendectomy, despite longer duration and complications that, although rare, are much harder with laparoscopic than open appendectomy, confirm the following advantages of the first:
- less traumas
- smaller surgical scar
- lesser postoperative pain
- less usage of medicaments
- aesthetic effect
- shorter period of hospitalization
- faster recovery and return to everyday life activities.
Keywords: appendix, laparoscopic appendectomy, advantage

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OUR EXPERIENCE AFTER 8120 LAPAROSCOPY CHOLECYSTECTOMY WITH SPECIAL VIEW TO THE COMPLICATIONS

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Aim: Laparoscopic cholecystectomy has become the prefered method of treatment for symptomatic gallstone disease since its introduction in 1987. It is the procedure of choice for cholecystectomy since it allows a shorter hospital stay and improved aesthetic results over conventional open cholecystectomy.
Methods: For the purpose of this review we analyzed 8120 patients with gallstones who underwent laparoscopic cholecystectomy at Clinical Hospital Center Rijeka, Croatia, between December 1993. and July 2006.
Results: The operation was completed in all patients. Among the most often intraoperative complications are those sustained during introduce of Veress needle, troacars and disection like hepatic lacerations, bleeding, gallbladder perforation, stone loss, bile duct damage and injuries of intrabdominal organs.
Postoperatively we encountered bleeding, bile leakage, subhepatal collections, biliary peritonitis, thrombophlebitis of the lower limb, urine retention and wound infections, mostly in the umbilical region.
We registered two deaths. One patient died during the early postoperative course due to bile duct injury and consequent biliary leakage, and the other patient died because of massive cardiac infarction at anesteziologist induction. In 179 patients we had to convert in open cholecystectomy. The main cause was extensive local inflammation or postinflammatory adhesions, making the recognition of vascular and biliary structures difficult. Nineteen patients requested the revision, because of biliary leakege (bile duct injury) in 15 cases, residual gallstones in 2 cases, injury of colon in one case and haemorhage in one case. Fourteen patients had postoperative subhepatal collection (mostly treated by ultrasound guided punction and drainage), and one patient had postoperative thromboflebitis of lower limb. In nine cases we dicovered residual gallstones in common bile duct (seven patients were treated succsessful by endoscopic sphyncterotomy).
The median duration of surgery was 47 minutes. Mean postoperative hospital stay was 3.2 days.
Conclusion: The simplicity of the postoperative course is the essential advantage of the method. Postoperative pain is minimal. Postoperative discomfort are reduced with early return to full activity. Analysis of 8120 patients with gallstones who underwent laparoscopic cholecystectomy from our centre indicates that this operation, when performed by the fully trained person, is safe and accompanied by a low morbidity.

115 - ABDO

"FAST-TRACK" PROTOKOL NAKON LAPAROSKOPSKIH RESEKCIJA KOLONA

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Cilj: "Fast-track" protokoli novija su metoda pristupa u poslijeoperacijskom liječenju. Stvoreni su kako bi optimalizirali poslijeoperacijsku njegu u cilju ubrzavanja oporavka, smanjenja morbiditeta i mortaliteta te skraćivanju boravka bolesnika u bolnici. Baziraju se na minimalno invazivnim kirurškim tehnikama, optimalnoj kontroli boli, ranoj poslijeoperacijskoj prehrani i ranoj mobilizaciji.
Cilj našeg rada je prikaz naših rezultata poslije uvođenja fast track protokola u bolesnika nakon laparoskopskih operacija debelog crijeva.
Metode: Od 01.03.2006 do 01.10 2006 ukupno je operirano 217 bolesnika kod kojih je učinjen jedan od resekcijskih zahvata na debelom crijevu. Od toga u 25 bolesnika (11,5%) zahvat je započet laparoskopski. U 4 (16%) bolesnika učinjena je konverzija u klasični pristup.
Fast track protokol sastojao se u postavljanju epiduralne analgezije prepoerativno. Enteralna prehrane na dan operacije do dvije čaše vode ili čaja peroralno, prvog poslijeopracijskog dana slobodno tekućine. Od drugog poslijeoperacijskog dana bolesnici su dobivali polutekuću hranu do postupnog uvođenja normalne prehrane. Rana mobilizacija je započeta na dan operacije, prvi postoperativni dan bolesnik je ustao iz kreveta uz pomoć fizioterapeuta.
Rezultati: U bolesnika kod kojih je proveden fast-track protokol smanjeni su opći morbiditet i lokalne komplikacije. Povratak funkcije gastrointestinalnog trakta i povratak normalnim aktivnostima značajno je kraći u fast track skupini bolesnika. Trajanje postoperativnog boravka ne razlikuje se značajno bolesnika s klasičnim poslijoperacijskim postupkom.

Zaključak: U kirurgiji debelog crijeva "fast-track" methode ubrzavaju oporavak i smanjuju broj komplikacija. U našim ustanovama trajanje poslijeopracijskog boravaka ovisi o nizu čimbenika koje se ne mogu urediti bolničkim protokolima.

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APENDICITIS - LAPAROSKOPSKI ILI OTVORENI PRISTUP?

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Kod akutnih abdominalnih stanja najčešće oboljenje je upala crvuljka, iako je dijagnostički često nejasna. Za sada nema jedinstvenog stava da li je laparoskopska apendektomija bolja od istog zahvata otvorenim načinom. Ipak može se reći da u svakodnevnoj praksi laparoskopska apendektomija nije široko prihvaćena. Na Klinici za kirurgiju KB Merkur u Zagrebu laparoskopska apendektomija je prvi put učinjena 1993. god. U razdoblju 2000.-05. od ukupnog broja operacija crvuljka laparoskopskom metodom je operirano 23% bolesnika. Nismo imali konverzija, postoperacijskih infekcija rane, intraabdominalnih apscesa niti drugih većih komplikacija na krvnim žilama i općenito. Laparoskopska apendektomija je sigurna i efektna operacijska metoda. Iako traje nešto duže preporuča se kod nejasnih bolova u donjem abdomenu, mlađih osoba, kao i kod kraćeg vremenskog trajanja bolesti, a i kod kroničnog apendicitisa. Daje sve prednosti koje sa sobom nosi minimalno invazivna kirurgija. Metoda nije šire prihvaćena, bar kod nas, prvenstveno zbog tehničko-organizacijskih razloga.

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ENDOSCOPIC EXTRAPERITONEAL INGUINAL HERNIA REPAIR WITH DOUBLE MESH: INDICATIONS, TECHNIQUE, COMPLICATIONS AND RESULTS

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Although totally extraperitoneal laparoscopic hernia repair has the same benefits attributed to the traditional preperitoneal prosthetic surgical repair method, this procedure is not used widely because of perceived difficulty in dissection. As one of the most common causes of hernia recurrence in this procedure is inadequate lateral inferior and medial inferior mesh fixation, we have introduced a double-mesh technique in an effort to reduce a recurrence rate. This procedure is a technical variation to the totally extraperitoneal laparoscopic inguinal hernia repair that provides a more secure inguinal floor by adjusting the second mesh to the area of weakness. Laparoscopic inguinal hernia repair with extraperitoneal double-mesh technique that will be described in details was performed in 53 selected patients with a very large indirect hernia and extremely large bilateral or recurrent hernias. The mean procedure duration was 74 minutes for unilateral hernias and 110 minutes for bilateral hernias. The median follow-up time was 65 (range 9-97) months with no recurrences, neuralgia, or bleeding complications. We believe that this technique offers perfect positioning of the meshes and provides the most secure inguinal floor. Therefore, the method is presented here for consideration in the laparoscopic repair of large indirect, direct or recurrent hernias.

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MOGUĆNOSTI IZVOĐENJA LAPAROSKOPSKE KOLECISTEKTOMIJE U UVJETIMA JEDNODNEVNE KIRURGIJE U HRVATSKOJ

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Cilj: Nakon uvođenja laparoskopske kolecistektomije ona ubrzo postaje "zlatni standard" u liječenju simptomatske kolelitijaze. Mnoge studije (prije svega američkih autora) pokazale su da se zahvat može izvesti u uvjetima jednodnevne kirugije bez dodatnog rizika u odnosu na hospitalni tretman. Vrlo je bitna adekvatna priprema,

primjerena anestezija te prijeoperativna selekcija kako bi se izbjegle komplikacije.
Cilj je ove studije bio utvrditi da li je i u Hrvatskoj moguće laparoskopsku kolecistektomiju izvoditi u uvjetima jednodnevne kirurgije te o čemu ovisi njen uspjeh.
Metode: Od 12.11.2003. do 25.2.2005. u ovu je studiju uvršteno 150 pacijenata sa simptomatskom kolelitijazom i komplikacijima te bolesti kod kojih je učinjena laparoskopska kolecistektomija. Pacijenti nisu selekcionirani a svih 150 kolecistektomija učinio je isti kirurg. Pacijenti su prijeoperativno obrađeni (anamnestički podaci, laboratorijski nalazi, ultrazvučni nalaz) a 6 do 8 sati nakon zahvata ocijenjivano je njihovo zdravstveno stanje tj. sposobnost za hipotetski odlazak kući.
Rezultati: Istraživanje je pokazalo da je 61% pacijenata bilo sposobno za odlazak kući 6 do 8 sati nakon operacije. Duže trajanje operativnog zahvata pokazalo je statističku povezanost sa nesposobnošću pacijenata za ambulantni tretman. Od ultrazvučnih atributa najveći utjecaj na produženo trajanje operacije, povećani rizik komplikacija te nesposobnost pacijenata da budu otpušteni na dan operativnog zahvata pokazala je zadebljana stijenka žučnjaka. Smanjeni voumen žučnjaka ("mali skvrčeni žučnjak") također je pokazao statistički značajan utjecaj na produženje operacije. Od neultrazvučnih atributa najznačajnijim su se pokazali ASA klasifikacija te anamnestički podatak o ranije preboljelom kolecistitisu. Vrlo se značajnim kod naših pacijenata pokazala subjektivna ocjena pacijenta o sposobnosti za odlazak kući (većina je preferirala hospitalni tretman).
Zaključak: Laparoskopska kolecistektomija u uvjetima jednodnevne kirurgije primjenjiva je i u Hrvatskoj no za sada većina pacijenata radije ostaje u bolnici nekoliko dana nakon operacije.
Ključne riječi: Kolelitijaza, laparoskopska kolecistektomija, dnevna kirurgija

174 - ABDO

LAPAROSCOPIC CHOLECYSTECTOMY IN GENERAL HOSPITAL VUKOVAR SINCE PEACEFUL REINTEGRATION UNTIL TODAY

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Aim of study: We want to show number of laparoscopic cholecystectomies , hospital days and complications.
Methods: This is an retrospective study since 1998 - 2005 year.
Results: First laparoscopic cholecystectomy in our hospital was performed 1998. Until 2005 we performed 900 operations (622 women and 278 men , average age was 48 years). We have 4.2% conversion into the classical operation. Reasons for conversions were tipycal complicaitons laparoscopic cholecystectomy (adhesions, iatrogenic lesion a. cysticae or CBD). Average hospital day was 4.
Conclusion : General Hospital Vukovar was 1991. completely destroyed. After reintegration our region we started with laparoscopic surgery and 1998 first laparoscopic cholecystectomy was performed. Although difficult finantial and technical problems, every year number of laparoscopic procedures increased. In the future we want to introduce a newer laparoscopic procedures - laparoscopic inguinal hernia repair and laparoscopic colon resection

176 - ABDO

THE CRP VALUES DURING SURGICAL TREATMENT OF CHRONIC CALCULUS OF THE GALLBLADDER

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C-reactive protein is a biochemical marker as an organism's response to stress. The aim of the study was to compare the CRP values during surgical treatment of gallbladder's calculus through different surgical methods: conventional or open surgery and laparoscopic surgery.
In prospective study we have analyzed 60 patients. They were divided into two groups. The first group was consist by 30 patients which had operation by laparoscopy. Second group were consist by 30 patient which were operated by open surgery. We've analyzed preoperative and postoperative CRP level in both groups. For statistical analysis we've used λ^2 test and student t-test.
Results: The medium preoperative CRP value was 149,14±2,67 and postoperative 618,00±9,86 in the first group of patients. In the second group the medium preoperative value of CRP was 108,60±2,28 and postoperative 1656,00±19,32.

Conclusion: The results have confirmed that the value of CRP is much less in postoperative period after laparoscopic than open cholecystectomy, so laparoscopic cholecystectomy surgical methods is a less invasive methods compared to the classic or open method
Key words: CRP, laparoscopy

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LARGE BOWEL OBSTRUCTION- A POSTOPERATIVE COMPLICATION AFTER LAPAROSCOPIC EXTRAPERITONEAL INGUINAL HERNIA REPAIR

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The laparoscopic approach to herniorrhaphy has undergone many variations in technique over the past 10 years in an attempt to reduce postoperative complications, discomfort, and long-term recurrence. One of the newer methods involves laparoscopic, extraperitoneal placement of a mesh sheet. However, laparoscopic technology is continuing to develop, so the complications of laparoscopic inguinal herniorrhaphy are not entirely known. Several articles have described adhesion of the intestine to the patch, causing intestinal obstruction following transabdominal laparoscopic procedures. Our case appears to represent the first description of a large bowel obstruction secondary to an intense, inflammatory reaction to the mesh inserted by laparoscopic extraperitoneal route.

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LAPAROSKOPSKA HOLEDOHOSKOPIJA-NAŠA ISKUSTVA

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Cilj rada: Cilj rada je da prikažemo naša iskustva u laparoskopskoj holedohoskopiji i ukažemo na njene prednosti i mogućnosti.. Laparoskopska exploracija zajedničkih bilijarnih vodova treba da bude upotrebljavana samo kod dijagnostikovanja holedoholitijaze u toku laparoskopske holecistektomije. Svaki pacijent koji ima litijazu u bilijarnim vodovima prethodno mora biti tretiran sa ERCP-om. Metoda izbora za liječenje holedoholitijaze je ERCP. Laparoskopska exploracija zajedničkih bilijarnih vodova je procedura koja zahtjeva znatnu tehničku podršku i koja nemora da bude dostupna svakoj instituciji. Dvije tehnike se upotrebljavaju za laparoskopsku holedohoskopiju. Prva - exploracija kroz dilatirani duktus cistikus i ova metoda se najviše koristi. Druga-koja se radi kroz direktnu holedohotomiju, a tehnički je mnogo teža i zahtjeva veliko iskustvo u laparoskopiji.. Na našoj klinici holedohoskopija (otvorena metoda) radi se već 25 godina, dok se sa primjenom laparoskopske holedohoskopije počelo prije 12 mjeseci.
Metode rada: Rađena je retrospektivna studija za period 2005-2006 godina u koju su uključene sve laparoskopske holedohoskopije, a koje su rađene nakon laparoskopske holecistektomije. U istrazivanju je ukljuceno 18 pacijenata. 11 žena i 7 muškaraca, dobne starosti od 22 - 56 god. Svi slučajevi su rađeni kada iz tehničkih razloga nismo bili u mogućnosti uraditi ERCP. Laparoskopske holedohoskopije na našoj klinici rađene su sa Olympus holedohoskopom 2 mm, sa visera digitalnim procesorom i memori stikom. Laparoskopije su rađene sa visera kamerom, optika kosa 10 mm, optika ravna 10 mm, dva višekratna troakara -10 mm, dva višekratna troakara 5 mm i ksenonski izvor hladnog svjetla.
Rezultati rada: U istrazivanju je ukljuceno 18 pacijenata. 11 zena i 7 muskaraca, U 3 slučaja smo nakon intraoperativnog dijagnosticiranja litijaze, iste odstranili iz holedohusa. Imali smo jednu komplikaciju-sekrecija bilijarnog sadržaja na kontaktni dren nakon što je ispao "T" dren iz holedoha. U 15 slučajeva radili smo trancističnu laparoskopsku holedohoskopiju, a u 3 slučaja je urađena holedohotomija uz ekstrakciju kalkulusa i plasiranje "T" drena.
Zaključak: Laparoskopska holedohoskopija je metoda koja zahtjeva tehničku potporu, ali i ogromno iskustvo hirurga. Isključivo se koristi kao metoda izbora nakon intraoperativno dijagnostikovane holedoholitijaze u toku laparoskopske holecistektomije. Koristi se kao dijagnostička i kao terapeutska metoda. Laparoskopska holedohoskopija je jako komforna za pacijente i ima velike prednosti u odnosu na otvorenu holedohoskopiju.

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OUR EXPERIENCES IN LAPAROSCOPY DURING SIX YEAR

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Aim: The aim of this study is evaluation and analysis of laparoscopic procedures in our department from the beginning to 2006 year. We analized the following relation: doctor's experiences during education to quality and number of laparoscopic procedures in our department.
Method: The retrospective analysis of number and types of operations in our department during six years, including all gynecological operations by annotation that we don't usually proceed radical hysterectomy and lymphadenectomy. Results:In our study we can see the increase of laparoscopic procedures related to classical laparotomy and vaginal operations. In the observed period of time we had 2871 operations in our department. 1354 laparotomies, 583 vaginal operations and 924 laparoscopies (32,2%).Relation laparoscopy- laparotomy during the first year was 32,5% and in the last observed year was 49,7%. During the first observed year we had 188 laparoscopic procedures including 30 (15,96%) advanced and 91 (50,28%) major procedures. Last observed years we had 225 laparoscopic procedures, 75 (33,33%0 advanced and 66 (38%) major procedures. The percent of conversion is 2,09% for each observed period. We had 0,9% complications in all laparoscopic operations, 1,56% complications of major and advanced laparoscopic procedures. We had 2 laesio of urether, 1 of ileum and 1 a. epigastricae inf.. Infection on port site we had in 4 patients. We can see that relative number of conversion and complication is independent of type of laparoscopic procedures and didn't increase with implementation of more complicated laparoscopic procedures in our department.
Conclusion: Experience et education of surgeons team and sophisticated technics is condition sine qua non of good quality of laparoscopic surgery. We have the increasing trend related to number of educated doctors and more experience.
Key words: Laparoscopy, less painful surgery is benefit for patients.

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HYSTERECTOMY AS METHOD OF SURGICAL TREATMENT AT DEPARTMENT OF GYNECOLOGY IN HEALTH CENTER SREMSKA MITROVICA

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Aim: The survey of our department's work concering surgical gynecology during the period of 5 years.
Method: The retrospective study has been written using the medical documents of the Surgical Gynecology Department during the period 2000/2004.
Results: During this period 1041 hysterectomies were performed in the following techniques: abdominal, vaginal, radical and laparoscopic.
Conclusion: This study shows the dynamics of introducing laparoscopic procedures concering hysterectomy.

39 - GYNA

THE FREQUENCY OF ECTOPIC PREGNANCY AT THE DEPARTMENT OF GYNECOLOGY AND OBSTETRICS IN TH HEALTH CENTER "SREMSKA MITROVICA" DURING THE PERIOD 2001/2005

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Aim: The analysis of ectopic pregnancies at the department of Gynecology and Obstetrics in the Health Center Sremska Mitrovica during the period of five years.
Methods: Using retrospective analysis we can see the protocol of ectopic pregnancies during those five years as well as analyze the ectopic pregnancies where the laparoscopic method was used.

Results: During five years (2001/2005) at the Department of Gynecology and Obstetrics in the Health Center Sremska Mitrovica there were126 ectopic pregnancies per 7218 labors which is the incidence 1:57. From 2001 to 2005 the incidence got increased from 1:99 to 1:54. At our department videolaparoscopic surgeries have been performed since 2000. In 2001 laparotomy was performed was performed in12 out of 18 cases of ectopic pregnancies and videolaparoscopy in 6.
However in 2005 all of 31 patients with ectopic pregnancies ere operated by videolaparoscopic method. Such a great percentage of videolaparocopic operations has been the result of exelent diagnostics as well as the introduction of a standard procedure of diagnostic laparoscopy. The increase of incidence of ectopic pregnancies has been caused by many factors. One of them is the arrival of patients from the nearby countries who want to be operated this way.
Conclusion: Ectopic pregnancy as an acute condition is gynecology and obstetrics. The method of a choice ia an operation done at a right time and videolaparoscopy accelerates and alleviates the recovery of a patient

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LPSC OVARIJSKI DRILLING U ŽENA SA SINDROMOM POLICISTIČNIH JAJNIKA

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Cilj. Pacijentice sa sindromom policističnih jajnika liječene gonadotropinima često imaju polifolikularan odgovor te su izložene riziku ovarijskog hiperstimulacijkog sindroma i multiplim trudnoćama.Naš cilj je analizirati učinak LOD na endokrinološke i kliničke parametre,te reproduktivan ishod u anovulatornih pacijentica sa sindromom policističnih jajnika, koristeći monoploarnu dijatermijsku iglu.
Metode. U prospektivnoj studiji sudjelovalo je 90 infertilnih ,anovulatornih žena sa sindromom policističnih jajnika u razdoblju od 2002.do 2005.g. na Odjelu za ginekologiju i porodništvo Kliničke bolnice Osijek. Analizirani su endokrinološki i klinički parametri te reproduktivni ishod.
Rezultati. Nakon LOD nađeno je značajno poboljšanje u regulaciji menstrualnog ciklusa.72 pacijentice(80%) postiglo je redoviti ovulacijski menstrualni ciklus nakon LOD.Tijekom kratkog perioda praćenja od 6 mjeseci zanijelo je 61,1% pacijentica.32 trudnoće su bile spontane,a 23 nakon stimuliranog ciklusa.Serumske vrijednosti LH,FSH:LH omjera bile su značajno snižene nakon LOD. Nije bilo značajnijih postoperativnih komplikacija. Većina pacijentica je otpuštena iz bolnice treći postoperativni dan.
Zaključak. LOD je uspješna i sigurna kirurška metoda kod liječenja žena sa sindromom policističnih jajnika koja poboljšava njihov reproduktivan ishod i kliničke parametre.LOD može izbjeći ili smanjiti rizik OHSS i multiple trudnoće s istim učinkom na stopu začeća kao prilikom stimulacije gonadotropinima. S obzirom da dijagnostika policističnog ovarijskog sindroma često uključuje i LOD pitanje je, da li lapsroskopija i LOD mogu biti metoda prvog izbora liječenja u žena sa PCOS.

154 - GYNA

PETNAESTOGODIŠNJE ISKUSTVO LAPAROSKOPSKOG TRETMANA EKTOPIČNE TRUDNOĆE NA ODJELU GINEKOLOGIJE I PORODNIŠTVA OPĆE BOLNICE ZABOK.

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Laparoskopski tretman ektopične trudnoće danas je zlatni standard u operacijskom tretmanu ektopične trudnoće. Naša iskustva na Odjelu ginekologije i porodništva Opće Bolnice Zabok datiraju gotovo u natrag petnaest godina, tako da već možemo reči da smo stekli kako teorijski tako i bogato praktičo iskustvo.
Što se tiče nacionalne strategije za operacijski tretman ektopične trudnoće endoskopskim putem, sigurno je da će i naša iskustva pomoči da se u svim Hrvatskim bolnicama tretman ektopične trudnoće bude endoskopski, a što podrazumijeva minimalno invazivan i najpoštedniji pristup za naše bolesnice. U tom slijedu su od velike pomoči i dosadašnji tečajevi iz ginekološke endoskopije "Kurt Semm" koje od 2000 godine organizira Hrvatsko društvo za ginekološku endoskopiju uz veliku potporu Odjela ginekologije i porodništva Opće Bolnice Zabok. Ove se godina

održava sedmi tečaj iz ginekološke endoskopije a u sklopu Svjetskog kongresa iz ginekološke endoskopije u Dubrovniku. Važnost navedenih tečajeva iz ginekološke endoskopije je velika, jer omogučavaju teorijska znanja ali i praktične osnove koji su mnogi ginekološki endoskopičari iz Hrvatske i dugih susjednih država savladali na tečajevima. Ista iskustva su kasnije ginekološki endoskopičari mogli kasnije u svojim sredinama implementirati u kliničkoj praksi, postajući na taj način pioniri u svojim sredinama i promicateljima nove filozofije u operacijskom endoskopskom tretmanu ginekološke kazuistike, pa tako i ektopične trudnoće. Edukacija je uvijek, pa i u ovom slučaju bila najvažniji čimbenik za razvoj medicinske struke, čemu i mi možemo svjedočiti, poglavito stoga što omogučava kontinuirano pračenje najsuvremenijih saznanja u medicinskoj struci.
Navedenim pristupom, moramo istaknuti da smo uspjeli da u praktičnom kliničkom radu, prigodom laparoskopskog tretmana ektopične trudnoće na Odjelu ginekologije i porodništva Opće Bolnice Zabok, kompletna kazuistika biva kod operacijskog tretmana tretirana isključivo laparoskopskim pristupom, što u konačnici dovodi do velikih boljitaka za same bolesnice a i zdravstvo u cjelini.

60 - UROL

LAPAROSCOPIC TREATMENT CYSTIS OF KIDNEY

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Aim: We show to you our video presentation of laparoscopic treatment of benign kidneys cysts.

228 - UROL

LAPAROSKOPSKA OPERACIJA FEOKROMOCITOMA

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Cilj: Opisati laparoskopsku adrenalektomiju zbog feokromocitoma prednjim transperitonealnim pristupom te analizirali učinkovitost i sigurnost ove metode. Feokromocitomi su relativno rijetki tumori čiji resekcijski rubovi prilikom operativnog zahvata predstavljaju kako tehnički tako i medicinski izazov.
Pacijenti i metode: Ukupan broj od 33 pacijenta (19 žena i 14 muškaraca) je podvrgnut laparoskopskoj adrenalektomiji zbog feokromocitoma u razdoblju između srpnja 2001. i listopada 2006. Učinjeno je 18 desnostranih i 15 lijevostranih adrenalektomija. Jedan pacijent je podvrgnut istovremeno obostranoj laparoskopskoj adrenalektomiji (MEN 2). U jednog pacijenta je učinjena parcijalna adrenalektomija. Zabilježen je jedan slučaj ekstraadrenalnog feokromocitoma. Srednja životna dob je bila 42 godine (raspod 23-74). Svi pacijenti su preoperativno dobivali alfa i beta blokere.
Rezultati: Srednja veličina tumora feokromocitoma je bila 3.5 cm (raspon 1.0-6.0). Srednje vrijeme trajanja operativnog zahvata je iznosilo 115 minuta, dok je procijenjeni gubitak krvi iznosio 100 ml. Značajna intraoperativna hipertenzija i aritmija se pojavila u 2 (6.1%) pacijenta. U niti jednom slučaju nije bilo potrebno napraviti konverziju u otvoreni kirurški zahvat. Veće postoperativne komplikacije nisu zapažene. Srednji broj dana hospitalizacije je iznosio 3 dana (raspon 2-6). U razdoblju praćenja od 19 mjeseci svi pacijenti su normotenzivni.
Zaključak: Laparoskopska adrenalektomija feokromocitoma se pokazala kao siguran i minimalno invazivan postupak. Laparoskopska adrenalektomija u usporedbi s otvorenom adrenalektomijom ima brojne prednosti, uključujući kraće vrijeme hospitalizacije, kraće vrijeme oporavka, bolji kozmetski učinak i smanjenje postoperativne boli.

145 - OTOR

OUR EXPERIENCE WITH VIRTUAL ENDOSCOPY IN DIAGNOSTICS AND PREOPERATIVE MANAGEMENT OF INVASIVE MAXILLARY SINUS CANCER.

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Goals: To demonstrate virtual endoscopy (VE) advantages and disadvantages in diagnostics and preoperative management of maxillary sinus cancer.
Methods: We performed a high-resolution helical CT scan (HRCT) of paranasal sinuses in a female with maxillary sinus cancer. Siemens Somatom Emotion 16 scanner was used for data collection with standard set of parameters for target area. We stored acquired images in DICOM format on Xeon-based dual processor workstation. Data post-processing was done with professional 3D Syngo CT 2006G software package.
Results: 41-year-old female with a cancer of right maxillary sinus was reffered to ENT and maxillofacial surgeon due to headache and dental problems. After an initial clinical management, HRCT was done and diagnosis was confirmed. During the post-processing of data we made virtual sinusoscopy and virtual rhinoscopy. Fly-through of virtual endocamera within the maxillary sinus and nasal cavity was manually driven. Using a mouse pointing device, we interactively changed the camera 3D position and focus. We also controlled the field of view of the camera. We found that inside the sinus a tumor was located on the floor and posterior wall. The surface involved by cancer was uneven, thickened and elevated in comparison to areas covered by healthy sinus mucosa. Reconstructed virtual images were comparable with those obtained by classical sinusoscopy. CT showed destruction of the posterior wall of maxillary sinus and further tumor advance to the retromaxillary space. Parts of the hard palate were also involved. There were no cancer spread to other parts of the body.

148 - OTOR

VIRTUAL ENDOSCOPY AND IN-SPACE BONE SURFACE RENDERING IN DIAGNOSIS AND PREOPERATIVE MANAGEMENT OF A PATIENT WITH MULTIPLE SKULL FRACTURES DUE TO SEVERE HEAD TRAUMA

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Goals: To implement new techniques of high resolution helical CT data post-processing in a preoperative diagnostics and management of a patients with severe head trauma.
Methods: We performed high resolution helical CT (HRCT) in a 67-years-old man that suffered severe head trauma in a traffic accident. Syngo Somatom Emotion 16 scanner was used for image acquisition. Since multiple fractures of skull bones with fragment dislocations were detected during preoperative management we decided to perform 3D in-space bone surface&volume rendering analysis as well as virtual endoscopy of nasal cavity and paranasal sinuses. Standard Syngo 3D and In-space software packages were used in post-processing.
Results: HRCT scan as well as in-space 3D post-procesing have shown multiple fractures of front wall of both maxillary sinuses with dislocation accompanied with hematosinus. Both posterior walls were also broken with minor dislocation. Multifragmental fracture of nasal bones with dislocation of all fragments and also fracture of cartilaginous septum was also found. Fracture of orbit bony borders was also revealed accompanied with fractures of sphenoid bone. Virtual endoscopy of nasal cavity performed with Syngo 3D showed intensity of septal deformation as well as damage of nasal pyramide. Maxillary and sphenoid sinuses were also examined. 3D position and orientation of fracture lines were showed by In-space software.
Conclusions: Virtual endoscopy of nasal cavity and paranasal sinuses in combination with in-space skull bone rendering may offer plastic and accurate additional 3D information for head and neck surgeon in combination with classical 2D CT images. These methods can help in preoperative management of patients with severe facial injuries.

Conclusions: In comparison with real endoscopy, the VE has several advantages. It is completely non-invasive. It is possible to repeat the same procedure hundreds of times, therefore it may be a valuable tool for training. Interactive control of all virtual camera parameters, including the field-of-view is possible. Endoscopic viewing as opposed to real endoscopy is not restricted to the spaces defined by inner surfaces. The viewer may penetrate the walls and see the extent of lesions within and beyond the wall. Finally, it has a potential to stage tumors by determining the location and the extent of transmural extension.

218 - CARD

TORAKOSKOPSKA SIMPATEKTOMIJA

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Torakoskopska simpatektomija je raširena metoda kao zahvat izbora kod bolesnika s Raynaudovom bolesti, hiperhidroze, simpatičke refleksne distrofije. Metodu uspješno koristimo na našoj klinici više od deset godina. Pored jednostavnosti i brzine zahvata postoje znatne prednosti za bolesnika. Radi se o minimalno invazivnom kirurškom zahvatu s rijeđim komplikacijama. Nakon više godišnjeg iskustva unijeli smo racionalizaciju
kako u broju izvršitelja, tako i u samoj tehnici izvođenja, a time smo smanjili i moguće rane i kasnije komlikacije. Osobitu pažnju poklanjamo suradnji u timu, a posebice s anesteziologom što je rezultiralo minimalnim brojem poslije operacijskih pneumotoraksa. Na taj način racionalizirali smo ekonomski čitav postupak i poštedjeli bolesnika. Metoda je efektna, sigurna i zahtjeva uobičajenu tehniku, danas dostupnu svakoj kirurgiji.

124 - ORTH

PRELIMINARY REPORT ABOUT OUR EXPERIENCE WITH ARTHROSCOPIC OSTEOCHONDAL MOZAICPLASTY

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Introduction: Chondral injuries involving the knee are common. The treatment of the full thickness cartilage defectsof the articular surfaces of weight-bearing joints is a frequent problem in practice. Many techniques had been described: Debridement, microfracture, perichondral grafts, autologous chondocyte implantation and mozaicplasty. Our paper is going to describe our early experience with arthroscopic osteochondral autograft transplantation.
Material and methods: At our hospital 3 patients with cartilaginous defect received mosaicplasty osteochondral grafting (2 female and one is male. 22,23 and 18 years old). The median area of the lesions was 2.4 sq. cm and the lesions were located at the medial femoral condyle. The technique involves obtaining small cylindrical grafts from the non-weight bearing periphery of the femur at the patellar femoral joint and transporting them to the prepared recipient site by arthroscopy using the single use OATS-ARTHREX system. In one patient we transplate one osteochondral 10mm cylinder, in the other two patients three 6mm cylinders.
Results: There was no complications directly associated with the arthoscopy, we had no infection.
Conclusion: Our eraly results suggest that arthroscopic osteochondral transplantation is a good method for treating full thickness chondral defects. The arthroscopic technique has low incident of complication with less pain.

234- GYNA

ENDOUTERINE SYNECHIAE AND SEPTATE UTERUS

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Objective: What is connection between appearance of endouterine synechiae and a septate uterus. Is a septate uterus an increased risk for occurrence of intrauterine synechiae. Endouterine synechiae are generated as a result of some damage of endometrium, traumatic or inflamatory.
Design and Methods: We investigated the group of 71 patients treated of endouterine synechiae. There are two subgroup: 1. 55 (77,5%) patients with endouterine synechiae and septate uterus, 2. 16 (22,5%) patients with endouterine synechiae without septate uterus. All patients had some disorder of menstrual bleeding. There were found different type as well as the extent of uterine adhaesions and the length of intrauterine septum at hysteroscopy.
Results: In the subgroup 1. abortion was a possible cause of the endometrium damage and the consecutive development of the intrauterine synechiae in 42 (76,4%) patients, in 37 spontaneous and in 5 violent. HSG was in 7 (12,7%), endometritis in 3 (5,5%) and postpartal retention of placental cotyledons in 2 (3,6%) patients. In the subgroup 2. abortion was in 6 (37,5%) patients, in 5 spontaneous and in 1 violent. Myomectomy was in 3 (18,7%), HSG , puerperal endometritis and IUD each in 2 (12,5%) and AIH in 1 (6,3%) patient.
Conclusion: The risk of a damage of the endometrium and consecutive development of the intrauterine synechiae is significantly increased with abortions, mainly miscarriagies, in cases with septate uterus. Hysteroscopic management of intrauterine synechiae and the intrauterine septum is safe. Successful delivery rate after hysteroscopic management is 80%.
Key words: endouterine synechiae, septate uterus, hysteroscopic procedures

235- GYNA

LAVH, LTH AND LSH

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Study Objective: To review the finding in the patients undergoing laparoscopic hysterectomy.
Design: Retrospective case controlled study.
Setting: Department of obstetrics and gynecology, University of Zagreb.
Patients: Eighty-seven patients with indication for hysterectomy underwent laparoscopic hysterectomy.
Intervention: Laparoscopic assisted vaginal hysterectomy was carried out in
78 cases (89.7%), laparoscopic total hysterectomy in 5 (5.7%) and laparoscopic supracervical hysterectomy in 4 cases (4.6%).
Measurements and Main Results: Hysterectomy without adnexectomy is carried out in 42 patients (48.3%), with bilateral adnexectomy in 35 (40.2%) and with unilateral adnexectomy in 10 patients (11.5%). The most frequent pathohistological finding was myoma of uterus in 57 cases (65.5%), adnexala benign cyst in 24 (27.6%), adenomyosis in 18 (20.7%), cervical ca in situ in 11 (12.6%), glandular endometrial polyp in 5 (5.7%), ovarian benign solid tumor in 4 (4.6%), endometrial carcinoma Stage I b in 3 (3.4%) and in 1 case (1.2%) serous papillar ovarian cystadenoma proliferans. In 2 patients (2.3%) because of severe intraabdominal adhesions after prior laparotomy, the procedure was converted to abdominal surgery. No other complications were encountered using laparoscopic surgery.
Conclusion: Laparoscopic assisted vaginal hysterctomy, laparoscopic total hysterectomy and laparoscopic supracervical hysterectomy are technically feasible and safe procedures. Many indications for abdominal hysterectomy can be managed by a laparoscopic approach with all benefits of minimally invasive surgery.

236 - GYNA

CLASS Va OF MULLERIAN ANOMALIES AND ULTRASONOGRAPHY

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Study Objective: To review findings in patients undergoing hysteroscopic incision of complete septum in the whole cavity of the uterus.
Design: Retrospective case controlled study.
Setting: Department of Obstetrics and Gynecology, "Sveti Duh" Hospital, University of Zagreb.
Patietns: Eighty-two patients with complete septum in the cavity of the uterus and in twelve patients with duplicated cervical portion and septate vagina.
Intervention: In all patient hysteroscopic metroplasty and in twelve with vaginal septum incision were carried out in period from 1993 to 2003.
Measurement and Main Results: From 1993 to 2003 total number of hysteroscopic metroplasty in patients classified in the Class V., VI. and VII. of AFS classification of Mullerian anomalies was 1556, number of patients with complete septate cavity of the uterus was 82 (5.3%), and number of patients with complete septate cavity of the uterus, duplicated cervical portion and septate vagina was 12 (0,8%). In the group of 82 patients the mean value of age was 29.3 years, range 18-41 years. The mean period of infertility was 5.4 years, range 1-19 years. Number of patients with primary infertility was 33 (40.2%) and with secondary 49 (59.8%).
Total number of pregnancies preoperatively was 102 (100.0%), 7 (6.9%) deliveries,
3 (42.8%) early newborn death, 2 (28.6%) stillborns and 2 (28.6%) survival newborns, both deliveries with living infants terminated by ceasarean section. There were 82 (80,4%) miscarriages from 7 to 23 weeks of the pregnancy.
Number of ectopic pregnancies is 6 (5.8%) and violent abortion 7 (6.9%).
Induction of ovulation was carried out in 7 (8.5%) patients.
In all patients ultrasound indicated on Mullerian anomalies. Septate uterus of different extent was found in 70 (85.4%) patients, bicornuate uterus in 10 (12.2%) and uterus didelphys in 2 (2.4%) patients
All patients were underwent hysteroscopic metroplasty, under laparoscopic exploration in 44 (53.6%) patients, in fact in half number of patients (in 22 patients) there was laparoscopic surgery because of different causes. In 4 (4.8%) cases was carried out the second hysteroscopic surgery because of the residual septum. Postoperatively, there are as preliminary results 25 pregnancies in 21 patients. The pregnancy terminated with the term delivery in 20 (80%) cases, preterm delivery with a viable newborn in 1 (4.0%) and miscarriage in 4 (16.0%) cases.
Ceasarean section carried out in 13 (52.0%) cases.
A survival rate is 84.0% (in 21 cases).
Coclusion: Ultrasound findings were suspected on Mullerian anomalies in all cases , but in 85.4% cases indicated on a septate uterus.
Hysteroscopic metroplasty is a safe method of the treatment of cases with complete septate uterus as safe hysteroscopic metroplasty and incision of vaginal septum of cases with complete septate uterus and septate vagina classified in Class Va of AFS classification of Mullerian anomalies.
After operative procedures significantly increased delivery rate, from 6.9% before to 84.0% after the procedures. A survival rate of 28.6% increased to 100%.
Spontaneous abortion rate decreased from 80.4% before the operation to 16.0% after the procedures.

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