

## DE GARENGEOT HERNIA – CASE REPORT

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Authors:

**Tihomir Grgić, M.D.**

**Ivica Šuvak, M.D.**

General Hospital Vukovar, Department of Surgery, Vukovar, Croatia

Correspondence to:

Tihomir Grgić, M.D.

General Hospital Vukovar

Bolnička 5, 32 000 Vukovar, Croatia

Mobile: +385 98 556 783

*E-mail: tgrgic.obv@gmail.com*

### Abstract

Femoral hernias are less common than inguinal and are more often found in females. The French surgeon Rene Jacques Croissant de Garengeot was the first one to describe the appendix in the femoral hernia sac. We present our case report: a 73-year-old woman with incarcerated right femoral hernia and strangulated appendix vermiformis. The patient underwent emergency surgery; appendicectomy and hernia repair was done. We present this case because of its rarity.

### Keywords

hernia, femoral hernia, appendicectomy

### Introduction

Femoral hernia occurs in 2%-4% of patients with groin hernia and mostly in female population [1]. Many intraabdominal organs can be in the hernial sac; like sygma, omentum, cecum, small bowel or appendix [2]. In every patient there is risk of incarceration of hernial sac and strangulation of hernial content [3]. Most patients undergo a hernioplasty operation, as an elective surgical procedure, but there are still some patients with incarceration and complications of femoral hernia.

### Case Report

A 73-year-old woman presented with a right-sided swelling groin pain of 5-day duration. She had no history of previous hernia or trauma. On examination we found a right inguinal swelling (4 x 3 cm) lateral to the pubic tubercle. An ultrasound was performed, with evidence of fluid collection. Also, we performed an abdominal x-ray, but it was without pathological findings. On the laboratory assays she had mild leukocytosis ( $12 \times 10^9$ ) and an elevated level of CRP (54 mg / L). Because of these clinical findings, on the day of admission our patient underwent emergency exploration surgery. In general anesthesia we performed an oblique groin incision and identified the incarcerated femoral hernia. After opening the hernia sac, a gangrenous, strangulated appendix was found, with haematogenous fluid collection (Fig. 1, 2). After appendicectomy, we did the McVay hernioplasty with a resorptive suture. The postoperative recovery was uneventful and the patient was discharged home on the third postoperative day. Laboratory findings on the third postoperative day were within normal levels.

### Discussion

There are some pathological conditions which cause groin mass: inflammatory processes, neoplasms, vascular conditions, congenital abnormalities and non-congenital hernias.

Femoral hernias are a rare condition and the appendix in the hernia sac is a very uncommon finding. Diagnosing the appendix in the hernia sac is very difficult, we can use ultrasound, which is a useful tool for the diagnosis of inguinal hernias [5, 6, 7], but most of them were discovered intraoperatively. CT or MRI imaging can also be useful in the diagnosis of femoral hernia [8]. The strangulation of the appendix is caused by tight femoral ring, but usually does not lead to abdominal peritonitis. Clinical signs are groin swelling, cellulitis and skin inflammation. An unrecognised inflammation can resolve or cause complications like abscess, necrotizing fasciitis, necrosis of hernial contents, bowel obstruction and even death. There are several options for treatment of De Garengeot hernia. If there are no

signs of inflammation, hernioplasty with mesh can be performed after appendicectomy. In case of appendicitis, a better option is to perform one of the classical hernioplasties like McVay, Bassini etc. [9, 10]. Nowadays, we also have possibilities to make laparoscopic explorations of the abdominal cavity and perform laparoscopic hernia repairs [11].

### Conclusion

It is very rare to find a strangulated, gangrenous appendix within a femoral hernia but this is a serious and potentially lethal complication. Early clinical diagnosis and surgical intervention are the best way to prevent all complications of this condition.

Figure 1.



Figure 2.




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