DE GARENGEOT’S HERNIA; ACUTE APPENDICITIS IN AN INCARCERATED FEMORAL HERNIA

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Acute appendicitis and incarcerated femoral hernia belong to relatively well known surgical diseases with regard to diagnostic workup and treatment. de Garengeot’s hernia is an entity involving concurrent occurrence of both the above mentioned problems.

This paper presents history of a 58-year old female patient who was diagnosed with this extremely rare syndrome. She presented to the Emergency Room of a hospital in Żyrardów due to painful mass in the right groin region, persisting for approximately 24 hours.

De Garengeot’s hernia, through combination of two separate surgical entities, is associated with diagnostic difficulties and the therapeutic process occasionally requires unconventional decisions to be taken to improve prognosis.

Key words: incarcerated femoral hernia, de Garengeot’s hernia, acute appendicitis, Amyand’s hernia

De Garengeot’s hernia was reported for the first time in 1731 by a French surgeon Rene Jacques Croissant de Garengeot. In 1735 an English surgeon Claudius Amyand reported acute appendicitis in the inguinal hernia sac (1, 2).

Femoral hernia accounts for 3% of all external hernias (1, 3, 4). This type of hernia is prone to incarceration (5-20% of all external hernia) (1). Acute appendicitis in an external hernia is found in 0.13-1% of cases (1, 3). De Garengeot’s hernia accounts for 0.5-3.3% of all femoral hernias (1, 3). It is more common in females (1-9).

Up to date De Garengeot’s hernia has not been reported in Poland.

CASE REPORT

A 58-year old female presented to the Emergency Room of a hospital in Żyrardów with a referral from her GP. On the previous day she called an ambulance from her home, but did not agree to be transported to a hospital despite such proposal. However, due to persisting pain, she decided to seek attention of her family doctor.

On admission she reported pain and concerning resistance in her right groin. These signs and symptoms persisted for approximately 24 hours. She reported no nausea, vomiting, problems with passing stool or urine, fever.

She had a history of Cesarean section many years before. On admission she did not have any chronic diseases or was taking any drugs on a chronic basis. She had a history of glomerulonephritis.

Physical examination revealed painful mass in the right groin region. The mass was hard, immobile. The abdomen was soft, non-tender, and the peristalsis was normal. Peritoneal signs were absent. Digital rectal examination was unremarkable. On admission her temperature was 36.6°C, BP = 130/80, HR = 76 bpm.

Abnormalities in additional tests included CRP: 73.3, WBC: 15.15. Other analytical parameters were within their normal ranges.

Based on standing plain abdominal X-ray and chest X-ray (PA view), no radiographic
evidence of gastrointestinal obstruction or perforation was found. Subsequently they were also ruled out by the radiologist’s report.

Due to limited diagnostic possibilities in an emergency setting, other imaging studies were not performed.

Emergency surgical treatment was suggested and the patient provided her oral and written consent for such treatment.

The femoral hernia sac was reached using an incision parallel to the right inguinal ligament under the ligament. Due to technical difficulties, the inguinal ligament was sectioned. Contents of the sac could correspond to a necrotic intestinal loop. In view of the above and lack of possibility of hernia repair using this incision, a decision was taken to open the abdominal cavity using a second incision. Laparotomy using the anterior midline incision in the lower abdomen was done. Adhesions between the cecum and small intestinal loops were cut. A necrotic vermiform appendix (entering the hernia sac) was found and was repaired retrogradely. The inguinal ligament was reconstructed and plasty of the femoral and inguinal canal was performed. Due to inflammation of adjacent tissues, a polypropylene mesh was not implanted. Redon’s drain was inserted to the adipose tissue in the wound parallel to the inguinal ligament and another drain was inserted to the vesicorectal pouch (fig. 1, 2, 3).

Based on subsequently received histopathology report, acute phlegmonous appendicitis was confirmed.

The early postoperative period was complicated by leakage of serous discharge, mainly from the lower pole of the wound in the midline. In view of the above, the patient was discharged on day 29 after the procedure and her follow-up was continued at the Outpatient Clinic of Surgery.

**DISCUSSION**

Due to technical difficulties caused by anatomy of an incarcerated femoral hernia, a decision was taken to proceed with laparotomy from a second incision. Revision of abdominal cavity through the anterior midline incision clearly demonstrated that the primary incision (parallel to the right inguinal ligament) would be unable to be used for the hernia repair.

The performed procedure demonstrated that should imaging studies (US imaging of abdominal cavity, CT imaging of abdominal cavity) were performed, proper preoperative diagnosis would be facilitated. However, they
would not affect optimal selection of a surgical technique and thus prognosis of the patient. Furthermore, delay of the surgery until performance of the imaging studies could worsen patient’s condition.

CONCLUSIONS

De Garengeot’s hernia is an extremely rare disease, combining acute appendicitis with incarcerated femoral hernia.

Due to acute nature of the disease, complete diagnostic work-up cannot be performed at some health care institutions; this particularly applies to the imaging one, which makes determining proper preoperative diagnosis difficult.

Atypical nature of this disease occasionally necessitates unconventional decisions to be taken by the surgeon, which directly affects number of postoperative complications and prognosis.

Consents

Written consent was obtained from the patient to publish her intraoperative images.

Written approval of the Director of Medyczne Centrum Zdrowia Mazowsza Zachodniego was obtained to review medical records of the patient.

REFERENCES


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