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Case Report

Rare Case of Inguinal Endometriosis Lump : Case Report and Literature Review

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Abstract

Background : Endometriosis is usually found in intrapelvic structures such as the ovaries, peritoneum, gynecological organs and the pouch of Douglas. We report an unusual case of endometriosis in the right inguinal region.
Cases : A 36-year-old woman with a history of laparoscopic surgery for endometriosis 4 years ago complained of catamenial pain and a mass in the right inguinal region, and her symptoms fluctuated with the menstrual cycle. An indistinct firm mass palpable in the right inguinal region. Ultrasound examination revealed a 2 × 1 cm mass in front of the pubic area on the lower edge of the rectus abdominis muscle. In a patient with an inguinal subcutaneous mass who complains of periodic changes in symptoms, endometriosis should be considered in the differential diagnosis.
Conclusion : The low incidence of inguinal endometriosis is one of the considerations in the different diagnosis of painful inguinal hernias in the inguinal area in women with childbearing age. The diagnosis of endometriosis can be demonstrated clearly on High-Definition Ultrasound by trained personnel. Surgery is the optional treatment and is curative in this case.

Keywords : Endometriosis; extra pelvic endometriosis; Inguinal subcutaneous Lump ; Inguinal Endometriosis, Inguinal Hernia

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INTRODUCTION

Endometriosis means that the functional endometrial gland suffers from a benign pathological disorder it that grows on the outside part of the uterine cavity. We can usually find endometriosis in intrapelvic structures such as the uterus, tubes, ovaries, peritoneum, and pouch of Douglas. The case of endometriosis in the subcutaneous area which is not the same as previous surgical access is hard to find, whereas some cases appear to show the same symptoms as soft tissue tumors.

We make a report on a rare endometriosis case where an endometriosis lump grows in the right inguinal area which resembles a soft tissue tumor or inguinal hernia.

CASE REPORT

A 36-year-old woman with history of laparoscopic cystectomy for endometriosis cyst 4 years ago. Currently single. The patient first experienced pain as well as felt a mass in the right part of the inguinal area 6 months ago. The local doctor's initial examination, it was stated that the patient had thrombophlebitis and was treated with NSAIDs and antibiotics. She felt the pain was gradually increasing and the size of the mass was getting bigger, especially during menstruation, the patient visited the outpatient polyclinic at Brawijaya Hospital, Jakarta, and continued to RSIA Anugerah Semarang.

Physical and supporting examination showed a hard and inelastic lump on the right side of the groin area. The lump is 3 × 2 cm in size and it has fixed mobility. The color of the skin above the mass is normal. Ultrasound examination of the pelvic and pelvis area within normal limits. High-definition General Electric S10® imaging which is taken during the period of menstruation has revealed a mass, with the size of 4 × 3 cm, in the subcutaneous tissue, which is in the front part of the right superior pubic ramus. This mass presented iso-signal intensity with areas of partial high signal intensity with uneven margins and firmly attached to the surrounding lump (Fig. 1), suggesting a desmoid mass, or other soft tissue tumor.

Treatment

We performed excision through the groin using the Erbe VIOs® electrocautery under spinal anesthesia in the operating room. The hard, elastic mass can be found in the subcutaneous area (Fig. 2). A band-like structure in the specimen was then observed macroscopically (Fig. 3,4). Next, we enucleated the mass with wide margins, considering malignancy and recurrence cases due to endometriosis. Histological examination revealed a glandular structure including cylindrical epithelium in the densely fibrous mass; these epithelia showed a little nuclear atypia, and they were confirmed positive for estrogen (Fig. 5). The endometriosis diagnosis was also confirmed microscopically, in which bands of densely fibrous tissue around the gland appeared.

The patient was treated at RSIA Anugerah Semarang with a distinctive diagnosis of right inguinal hernia. Four years earlier she had undergone bilateral cystectomy due to endometriosis and there was no recurrence for endometriosis after surgery. Assisted by a digestive surgeon, a cut is made in the inguinal line at the oblique aponeurosis to reveal the superficial ring at its apex. Exploration then exposed a cystic, bluish mass, with the diameter of 2 cm, attached to a round ligament and

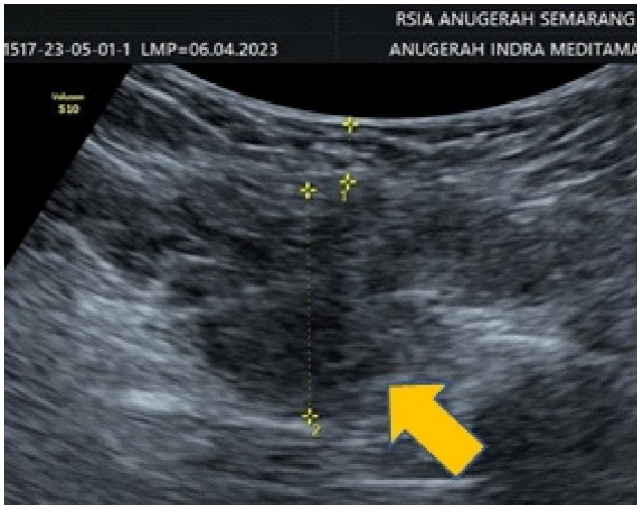


Figure 1. We can see mass in the subcutaneous Lump in front of the right superior pubic ramus with iso-signal intensity with an area of partial high signal intensity with uneven edges and firmly attached to the surrounding Lump.



Figure 2. A hard, elastic tumor is seen under the subcutaneous Lump accompanied by hypervascularization



Figure 3. The diagnosis of endometriosis is confirmed microscopically, where a band-like structure of dense fibrous tissue around the gland (arrows) appears.



Figure 4. We enucleated the mass with wide margins, considering cases of malignancy and recurrence due to endometriosis.

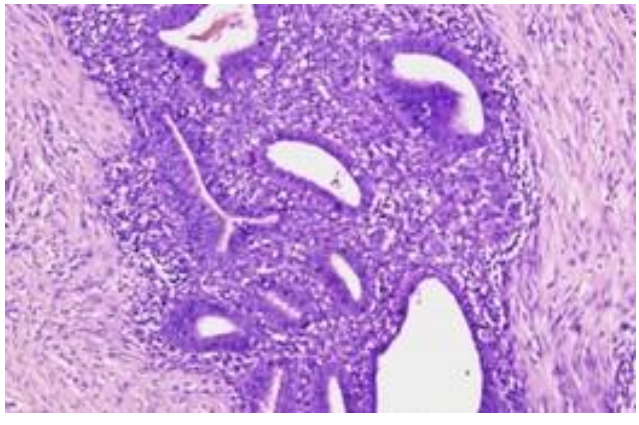


Figure 5. Histological examination revealed a glandular structure consisting of a cylindrical epithelium in dense fibrous tisuue; this epithelium shows minimal nuclear atypia.



Figure 6. No hernia sac was found in the inguinal canal. Subcuticular suturing was performed after control of bleeding from inguinal endometriosis implantation.

which was full of dark fluid.

Outcome

The mass is determined in histopathological way to originate from the endometrium. It is proven that there was no hernia sac found in the inguinal canal. The patient can go home the next day without any problems and complications (Fig. 6).

The patient was free from pain after surgery and there was no recurrence either form physical examintaion and ultrasound screening in 24 months after surgery.

DISCUSSION

Endometriosis is an ordinary gynecological pathology that happens to 8–15% women in childbearing age, and it appears in the fourth decade of life. It is marked by the development of ectopic endometrial mass, which is under hormonal stimulation of the ovaries assuming the functional and proliferative aspects characteristic of normal endometrium.[1–4]

Endometriosis recurrence can occur in 10% of women even though they have had children. Many patients suffering endometriosis are asymptomatic, but some prove to experience infertility, menstrual irregularities, menorrhagia, lower abdominal pain, or flank pain. The onset of symptoms and outgrowth of endometriosis due to exposure to the estrogen hormone against endometrial mass that is in extra pelvic. Therefore, an increase in the intensity of symptoms associated with periodic menstruation may occur. Patients currently complain that the intensity of symptoms increases continually in the period of menstruation, even though endometriosis is commonly discovered in intrapelvic structures such as the ovaries, pelvic peritoneum or pouch of Douglas, extra pelvic endometriosis is relatively uncommon.[2,3] Extra pelvic endometriosis can indeed come up in the ileum, jejunum,

pleura, lungs, and peripheral nerves and can even occur in pleura, which is known as catamenial pneumothorax. Surgical scars following laparotomy, section or part of the trocar insertion from the laparoscope are also potential sites for endometriosis to grow.[3–5]

In the recent case, the patient has never had a laparotomy or surgery around the inguinal region before. Extra pelvic endometriosis, which occurs in the inguinal subcutaneous tissue , is uncommon. Candiani *et al* shared that the occurrence of inguinal endometriosis was 0.6% in all extra pelvic cases. Therefore, in the inguinal region it is difficult to diagnose a soft endometriotic mass as extra pelvic endometriosis. Clausen and Nielsen reported that, the largest series of endometriosis in the groin area, are, in fact, 30 cases. From 27 cases, out of 30 ones, the lesion is located on the right part. In different literature, the right part is predominant, and two-thirds of all cases occur around the round ligament. The same thing, the lesion in this case is on the right part, and the structure of ligament is observed in the surgical specimen. Hagiwara *et al* shared that there are two cases of inguinal subcutaneous endometriosis attached to the round ligament of the uterus. Previous literature states that there is a persistence between the lesion and the right part of round ligament of the uterus, but has there has nothing to do with inguinal hernias.[6–10]

In the prior reports, endometriosis usually appeared as a high-signal intensity lesion on MRI images, due to methemoglobin deposits. On T2 MRI images, the intensity of high signal is normal; nevertheless, diffuse hemosiderin deposition that reflects cyclic bleeding may result in the appearance of low signal intensity. Dimming or losing the variable of signal intensity on T2-weighted images is an image that often occurs in endometriosis. In the recent case, the mass exhibits iso-signal intensity in both the T1 and T2 weighted images. Furthermore, the masses show areas of high partial signal intensity in the T2-weighted images. Because the endometriosis features on MRI varies, it is considered difficult for the diagnosis of endometriosis by MRI. Also, the clinical history involving periodic pain cycles and MRI can indicate the possibility of endometriosis. Proliferation of fibrous tissue, a glandular structure composed of columnar epithelium, and a positive immunohistochemical reaction to estrogen can suggest an endometriosis diagnosis.[11,12]

Overall, a patient suffering an inguinal subcutaneous mass, who complains of continual changes in symptoms, the diagnosis of inguinal endometriosis should be considered as a distinctive diagnosis other than an inguinal hernia.

CONCLUSION

The exception of inguinal endometriosis should not eliminate it from the clinical Pathway in the case of fertile women suffering a painful mass in the area of ingunial, especially if the ingunial mass is related to size and tenderness with menstrual variability.

Endometriosis is a disease marked by the appearance of endometrial tissue that functions in places excluding the uterine cavity. Pelvic lesions are the most frequent site of occurrence, yet endometriosis also occurs at extra pelvic location, and in these cases, a patient's symptoms are opted by localization and not by lesion size. Extra pelvic endometriosis manifesting as a hernia is often unnoticed by digestive surgeons, whereas a correct preoperative diagnosis is made in only 38%.[6,7]

After surgery, thorough gynecological monitoring and assessment is mandatory seeing that additional intraperitoneal localization may be considered and the differential diagnosis of inguinal masses in cases of recurrent endometriosis.

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