Endometriosis Presenting as Inguinal Mass Attached to the Extra Pelvic Part of Round Ligament

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Abstract

Endometriosis attached to extra pelvic part of the round ligament is rare. Preoperative diagnosis is difficult but history and presentation may guide to diagnosis which is confirmed on histology. A woman aged 29 years presented with painful right inguinal mass whose intensity of pain and size changed with menstrual cycle. Physical examination revealed right inguinal hard, fixed mass measuring 2×2 cm. Ultrasound, computed tomography, and fine needle aspiration cytology were normal therefore, excision of the mass was done along with histology which, confirmed endometriosis; simultaneous laparoscopy was performed which showed peritoneal endometriosis too.

Key words: Endometriosis, inguinal region, laparoscopy.

Introduction

Endometriosis is common in females of reproductive age group and commonly involves ovaries, pouch of Douglas, utero-sacral ligaments and other peritoneal areas. It is uncommon in the extra peritoneal inguinal region where its incidence is less than 0.4%\(^1\). Inguinal endometriosis was first reported in 1896\(^3\). The mean age of the patients is usually around 38 years with size of the inguinal mass ranging from 1 to 3 cm and the mass mostly affects right side. After excision of the inguinal mass, it is recommended to do diagnostic laparoscopy since over 90% cases of inguinal endometriosis cases have associated pelvic endometriosis.

Case Report

A 29 year old nulliparous woman presented to the clinic with complaints of right inguinal swelling of 2 year duration. She described periodic increase in its size every month during menstrual period which then would return back to its usual size for the remaining days. She also had associated pain at the site of swelling. She had a history of regular menstrual period with no dysmenorrhea and didn’t experience lower abdominal pain, dyspareunia, dyschezia or dysuria. On examination, the right inguinal swelling was about 2×2 cm in diameter just above and lateral to symphysis pubis, red in color, hard in consistency, not tender, relatively fixed to underlying structure with well defined edges. There was no swelling in contra lateral side. The gynecological examination revealed healthy vulva, vagina and cervix with dextrorotated mobile normal sized uterus, normal adnexa of both sides with normal Douglas pouch and parametria. Pelvic ultrasound was normal. Fine-needle aspiration (FNA) biopsy of the inguinal swelling revealed fibrosis only.

Figure 1

The patient was advised excision of the swelling along with diagnostic laparoscopy which revealed a mass attached to the round ligament just above and lateral to the right pubic tubercle about 2×2 cm (Figure-1). Frozen section of the mass revealed endometrial type gland and stroma (Figure-2) and diagnostic laparoscopy revealed right uterosacral endometrial spots and left ovarian fossa.
endometrial spot which were excised and sent for histopathology.

Figure 2

The resected specimen was about 2x2 cm in size, firm in consistency with black spots which was dissected from the surrounding tissues and sent for histopathology. On histology there were epithelial and stromal cells in the subcutaneous tissue with 100% expression of both steroid receptors (estrogen and progesterone receptors) and proliferation of epithelial and stromal cells.

The patient improved dramatically after resection of this inguinal mass and during menstrual periods she had feeling of dull aching pain but no swelling.

Discussion

Endometriosis is the presence of endometrial tissues at sites other than the uterine cavity and its musculature. It affects approximately 10% females and commonly presents in the ovaries, uterosacral ligament, pouch of Douglas and pelvic peritoneum, while, the rare sites of endometriosis include intestine, bladder, surgical scars, umbilicus, diaphragm, and groin. It is uncommon in inguinal region (<1% of all endometriosis cases) and very rare in the extraperitoneal part of the round ligament. The theories for endometriosis either in common or uncommon sites include coelomic metaplasia, tubal regurgitation, lymphatic spread and direct extension to the inguinal area, others advocate the theory of the remnant of canal of Nuke. The usual symptoms of inguinal endometriosis are mass in that area, pain and tenderness during menstrual period which disappear after the period is over. Same was seen in our patient.

Inguinal endometriosis is more common on the right side and approximately 90% of reported cases of extra peritoneal endometriosis are found in the right inguinal region as was also seen in our case. About 91% inguinal endometriosis is usually associated with pelvic endometriosis; therefore, it is recommended to do laparoscopy in every case. The usual symptoms of pelvic endometrioses are dysmenorrhea, dyspareunia, menstrual irregularities and infertility, while, those with inguinal endometriosis present with unusual complaints like periodic painful mass and tenderness or monthly increase in its size. Almost same symptoms were seen in our case.

Preoperative radiological studies like ultrasound, computed tomography and magnetic resonance imaging are helpful in its diagnosis and can show change in the size of the mass in relation to menstrual cycle, but other studies indicate that magnetic resonance imaging is more accurate because it can identify the presence of iron in the hemosiderin deposits already present in an endometrioma. Table shows the reported cases in the literature which indicates the rarity of endometriosis in the round ligament especially the extra pelvic part. Inguinal endometriosis was first described in 1896 and after that only a little more than 30 cases have been reported. The mean age of the patients is around 38 years, the size of the inguinal mass ranges from 1 to 3 cm, the right side is involved in 94% of the cases. After excision of the inguinal mass, it is recommended to do diagnostic laparoscopy since it is reported that 91% of inguinal endometriosis cases are associated with coexisting pelvic endometriosis.

Table: Review of literature.

<table>
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<tr>
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<th>History of Surgery</th>
<th>History of Pelvic Endometriosis</th>
<th>Laparoscopy</th>
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<td>Round ligament</td>
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Conclusion

There are many causes of a swelling in the right inguinal region, common causes include inguinal or femoral hernia, enlarged lymph nodes, or lesions originated in the skin itself. The case presented here illustrate unusual cause of right inguinal swelling which attached directly to extra peritoneal part of the round ligament and this explain the importance of taking a detailed history and making physical examination. The importance of doing magnetic resonance image and Fine Needle Aspiration cannot be neglected in aiding to make the diagnosis but simple excisional procedure is adequate management in this case for both treatment and diagnosis.

Pelvic laparoscopy is so important in this case to see if there is associated pelvic endometriosis which may explain other complaints if present, so common is common but don’t forget rare causes of right inguinal swelling and pain.

References