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Case Report

Umbilical endometriosis along with peritoneal endometriosis: a case report

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ABSTRACT

Incidence of endometriosis is around 10 to 15% in women of reproductive age group. Umbilical endometriosis is a very rare entity. Extra genital endometriosis accounts to 3% of endometriosis. Incidence of umbilical endometriosis is 0.5%-4% of extra genital endometriosis. 30 years old multi gravida was referred to our hospital with c/o periodic bleeding from the umbilicus for the past 3 months. She was also having dysmenorrhoea for about 3 months. On examination, patient had a small bluish nodule in the umbilicus around 1.5x1.2 cm in size. Clinically there was suspicion of pelvic endometriosis as the uterus was retroverted and fixed. CT abdomen showed a small hypo-echoic area in the umbilicus and uterus was adenomyotic with normal ovaries. Patient was given the option of laparoscopy and excision of umbilicus, as there was suspicion of peritoneal endometriosis and the patient also insisted upon laparoscopic sterilization. Laparoscopy showed early peritoneal endometriosis with pelvic adhesions and the same adhesiolysis was done along with cauterization of endometriosis. Sterilization was also done as per the patient's request. Umbilical excision and layer closure was done. Umbilical endometriosis is a rare entity. This patient had associated early pelvic endometriosis. Umbilical endometriosis could be secondary to the lympho vascular spread from the pelvic endometriosis or primary umbilical endometriosis. History, clinical and imaging were pointing towards umbilical endometriosis. Surgical excision of umbilical endometriosis and cauterisation of early pelvic endometriosis were done. Patient needs follow up. Umbilical endometriosis may be primary or secondary which needs total excision and follow up.

Keywords: Endometriosis, Laparoscopy, Peritoneum umbilical

INTRODUCTION

Endometriosis is a chronic inflammatory disease where the endometrial glands and stroma are found outside the uterine cavity and often affects the pelvic peritoneum.¹ 10-15% of women of child bearing age and 6% of the perimenopausal women suffer from endometriosis.^{2,3} 3% of endometriosis is extra genital. 0.5%-1% of endometriosis are found in the umbilicus. Common sites of endometriosis are peritoneum, ovary and utero sacral ligaments.⁴ Extra genital lesions are seen in the intestines,

kidneys, scar sites, lungs and umbilicus. Scar site endometriosis (Cutaneous endometriosis) is seen over the abdomen, pelvic scars, laparoscopic port sites and episiotomy sites.⁵⁻¹⁰ Umbilical endometriosis is a very rare entity and English literature shows 37 cases.¹¹

Umbilical endometriosis is associated with cyclical pain, mass in the umbilicus which bleeds during menstruation. The pathogenesis is not understood clearly. This could be due to the migration of endometrial cells to the umbilicus through the abdominal cavity or lympho vascular route or

embryonic remnants in the urachus and umbilical vessels.^{4,12} Secondary umbilical endometriosis could be iatrogenic following surgery.^{12,13}

Present case was associated with early pelvic endometriosis, which could have caused secondary umbilical endometriosis via lympho vascular spread. The treatment is only excision of the umbilical endometriosis and laparoscopic excision or cauterization of pelvic endometriosis.

CASE REPORT

About 30-year-old P2L2 reported with c/o bleeding from the umbilicus and dysmenorrhea for the past 3 to 6 months. She noticed a small bluish nodule in the umbilicus which started bleeding during menstruation. She had 2 normal deliveries and no other surgical history. Her complaints are mild dysmenorrhea only and no dyspareunia. There was no history of intake of oral contraceptive pills.

On examination, her general condition was good. There was 1.5 cm x 1.2 cm bluish nodule within the umbilicus which is not tender and not bleeding at the time of examination. Vaginal examination showed a healthy cervix and fixed retroverted bulky uterus. Based on the history and clinical examination provisional diagnoses of umbilical and peritoneal endometriosis were made.

Investigation

USG showed a small nodule in the subcutaneous plane of the umbilicus and pelvis showed reteroverted bulky adenomyotic uterus with fixed ovaries. There was no evidence of endometrioma.



Figure 1: External view of umbilical endometriosis.

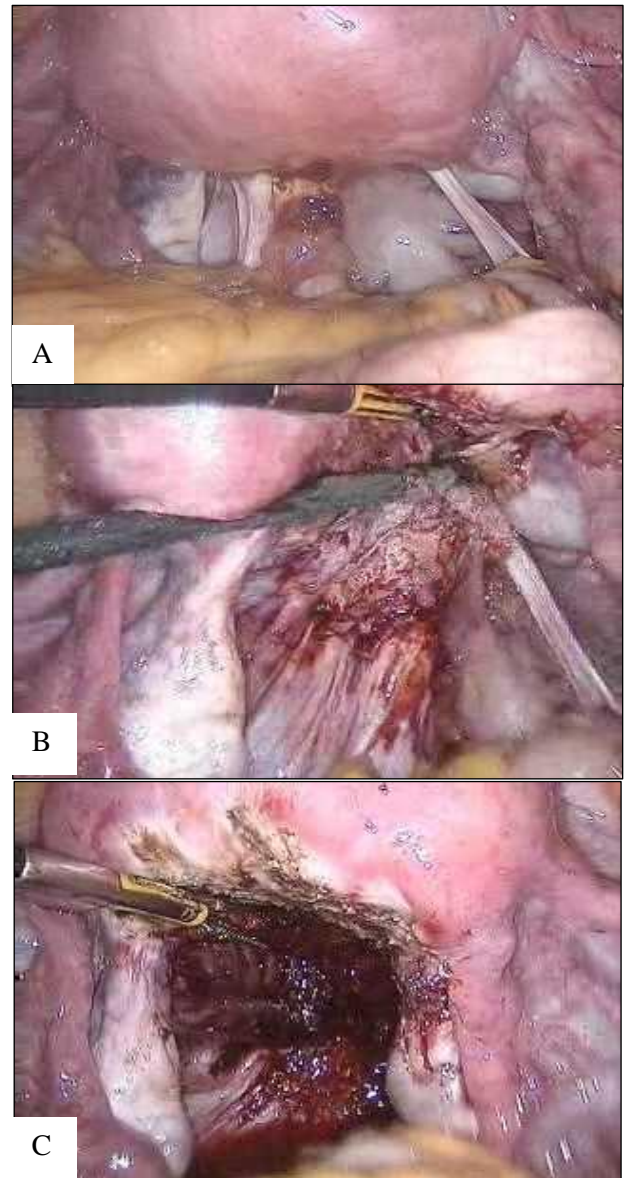


Figure 2: Laparoscopic view of peritoneal endometriosis.

Management

Contrast Enhanced CT confirmed the finding of umbilical endometriosis. Pre-operative evaluation was normal. Patient was advised excision of the umbilical endometriosis and she also wanted concurrent laparoscopic sterilization. Hence she was subjected to laparoscopy, through supra- umbilical port which revealed early peritoneal endometriosis over the Pouch of Douglas, Ovarian fossa and utero sacral ligaments. All the lesions were cauterized and sterilization was done using bipolar cautery. Laparoscopic lateral ports were closed. Circular incision was placed over the umbilicus and it was excised. Peritoneum was opened. Subsequently layer closure was done. Post-operative was period was uneventful.

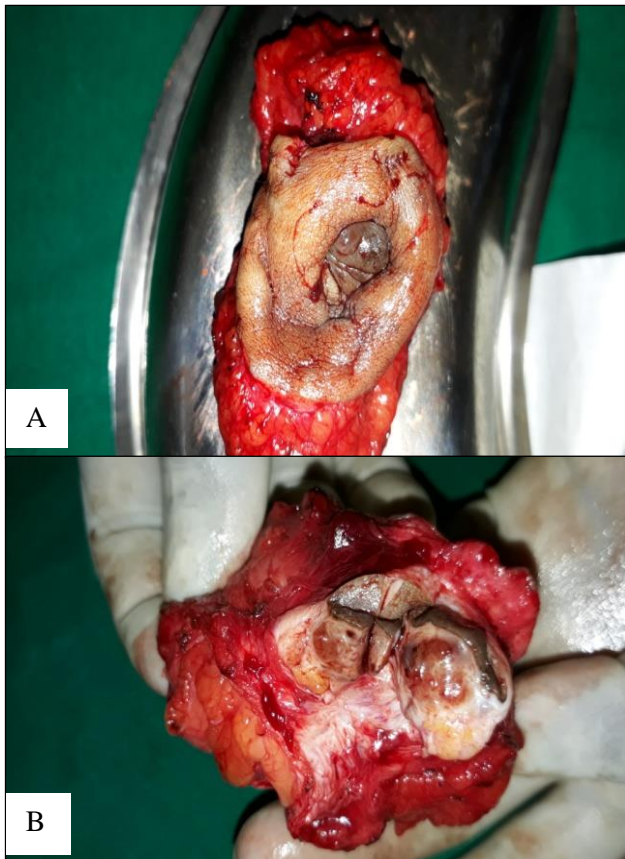


Figure 3: Macroscopic appearance of umbilical endometriosis.

Histopathology of the lesion revealed umbilical endometriosis. The sections of the specimen showed skin with underlying tissues having endometrial glands. Few glands are cystically dilated and filled with blood. Surrounding stroma showed many siderophages and fibrosis.

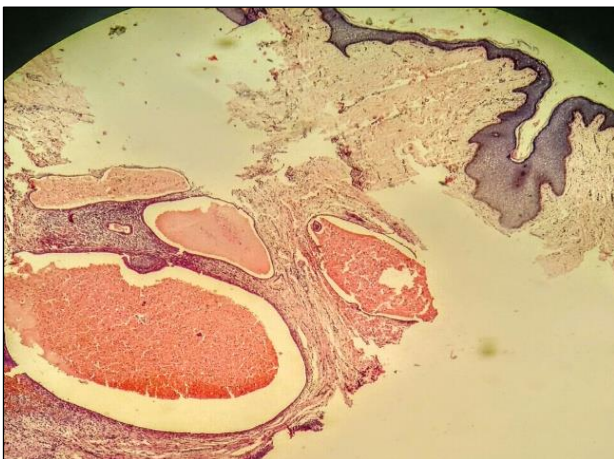


Figure 4: Histopathology of the specimen.

Since the patient had associated peritoneal endometriosis, she was advised GnRH analogs/dienogest/OC Pills to prevent the recurrence.

DISCUSSION

Primary umbilical endometriosis was first discussed by Villar et al, in 1886 which accounts to 0.5 to 1% of the extra genital endometriosis.¹⁴⁻¹⁶ In this patient, possibility of secondary umbilical endometriosis has to be thought, because of associated pelvic endometriosis. The theories behind the origin of endometriosis are Sampson's spill theory, Ivanoff Meyer's metaplastic theory, Halban's lympho vascular theory and immunological theory.¹⁷⁻¹⁹ Primary umbilical endometriosis could be due to metaplasia of the mesothelial cells of the peritoneum or from embryonic remnants of the urachus and umbilical vessels. Secondary umbilical endometriosis is due to iatrogenic dissemination endometrial cells during laparoscopic surgery.²⁰ Spontaneous cutaneous endometriosis is associated with pelvic endometriosis rather than scar endometriosis.

Umbilical endometriosis presents with a bluish nodule which is usually painful and tender. Cyclical bleeding or discharges during menstruation are the commonest presentation.²¹ But, some patients are asymptomatic.^{22,23} There are studies which report only constant pain which is not associated with menstruation.^{20,25} History of pelvic endometriosis is seen 26% of the cases.²⁵ The nodule can vary in size and color (bluish to brown) which depends upon the duration. This patient presented with classical features of cyclical bleeding from the umbilicus.

Diagnosis by MRI/CT/USG is very difficult. CT scan can demonstrate well circumscribed mass and may be useful in showing the extent of the disease. MRI can define the size and location of the lesion and possibility of intra-abdominal extension of the lesion can be made. MRI is not useful in diagnosing peritoneal endometriosis.^{23,26,27} FNAC may help to clinch the diagnosis, supported by clinical symptoms and findings. Some authors claim that even FNAC may not be accurate.¹⁸ This particular patient was not subjected to FNAC/MRI. CT/USG was only done which showed a nodule in subcutaneous plane. More than imaging modalities like CT, MRI, clinical suspicion of umbilical endometriosis is valid in the diagnosis. USG may be a simple diagnostic tool, which can provide information about the size and plane of lesion.^{27,28}

Differential diagnosis is hemangioma, umbilical hernia, sebaceous cyst, granuloma, lipoma, abscess, keloid, urachus anomaly, malignant lesions like Sister Joseph nodule, melanoma, sarcoma, adenocarcinoma and lymphoma.²⁷

There is no place for medical management for complete cure. Hormonal therapy like OC pills and Dienogest may reduce the size of the lesion and the symptoms.^{29,30} Some authors have tried medical management without success. Surgery is a safe and definitive treatment of umbilical endometriosis.^{4,31} Review by Victory et al, suggests 70% need surgical management.³² This includes excision of

the lesion along with umbilicus or in possible cases umbilicus can be preserved or reconstructed. Wide excision is advised to avoid recurrence. In the patient, authors did wide excision of the umbilicus and layer closure which has been proposed by many authors.³³ Laparoscopy was done simultaneously, which picked up peritoneal endometriosis and the patient was subjected to cauterization of the endometriotic lesions and sterilization done as per her request. Some authors are suggesting that simultaneous laparoscopy can be performed as 13-15% umbilical endometriosis is associated with pelvic endometriosis.^{34,35} Post-operative medical management with progestins, help to reduce the recurrence of pelvic endometriosis.

Risk of malignant transformation is very low in umbilical endometriosis. First case was reported in the year 1972.³⁶ Malignant transformation will be usually adenocarcinoma or clear cell carcinoma.

CONCLUSION

Umbilical endometriosis has to be considered when patient presents with cyclical pain and bleeding from the umbilicus. Treatment is always excision and medical management has no role. This patient had simultaneous peritoneal endometriosis which was treated at the same time. Patient needs follow up of peritoneal endometriosis and recurrence can be prevented by use of progestins.

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