Case Report: Gynaecology

A Rare Case of Primary Umbilical Endometriosis

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ABSTRACT

Umbilical endometriosis or villar's nodule without ongoing pelvic endometriosis is uncommon. Incidence goes up to 0.5 -1.2% of all patients with endometriosis. Only 232 cases of umbilical endometriosis have been reported worldwide. The primitive location of this nodule at the umbilical level is rare. Its etiopathogenesis remains unclear.

A 39 years aged, P2+0,with previous 2 vaginal deliveries with no prior history of any surgery and not a known case of pelvic endometriosis, presented with complaining of redness and bleeding from an umbilical nodule for last two years. These symptoms were cyclical, flared up during mensuration and were not relieved by medication. O/E, a 2-3cm small multinodular reddish brown pigmented mass was seen at the umbilicus. On ultrasonography, she was diagnosed with umbilical endometriosis. MRI was done to assess the depth of invasion. Wide excision of umbilical lesion was performed. HPE showed endometrial glands and stroma, confirming the diagnosis of umbilical endometriosis. Diagnosis is challenging and relies on clinical suspicion, imaging studies, and histopathological confirmation after surgical excision.

Introduction

Primary umbilical endometriosis (PUE) is an uncommon and often overlooked condition where endometrial tissue is found at the umbilicus, outside the usual sites such as the uterine cavity or ovaries. This rare form of endometriosis was first described 1in 1911, and fewer than 232 cases have been reported since then. PUE typically affects women of reproductive age, although cases in postmenopausal women have also been documented, often in those undergoing hormone replacement therapy.

The presentation of PUE is often marked by a well-circumscribed, painful nodule or mass at the umbilicus, which may become tender, enlarge, or even bleed in conjunction with the patient's menstrual cycle. This cyclicity of symptoms is a hallmark2 feature that can help differentiate it from other umbilical masses. However, due to the rarity of the condition and its clinical similarity to other benign umbilical lesions, such as infections, hernias, or sebaceous cysts, diagnosis is frequently delayed.

The case: A 38-year-old woman, P 2+0 with previous vaginal deliveries, presented with a complaint of a painful nodule at her umbilicus. She described the nodule as becoming more noticeable and tender with occasional mild bleeding from the mass during menstruation. The nodule was gradually enlarging over the past 8 months, but it was not associated with fever,

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discharge, or skin changes over the umbilical area. The patient did not have any significant abdominal pain, weight loss, or gastrointestinal symptoms. She had no history of any abdominal trauma or recent infections.

She experienced menses regularly in the past year. There was no significant history of pelvic pain or dysmenorrhoea. Past medical history was insignificant. No history of pelvic surgeries, gynaecological conditions, or abdominal surgeries. On examination, there was a multinodular, reddish-brown mass at the umbilicus without any visible discharge.

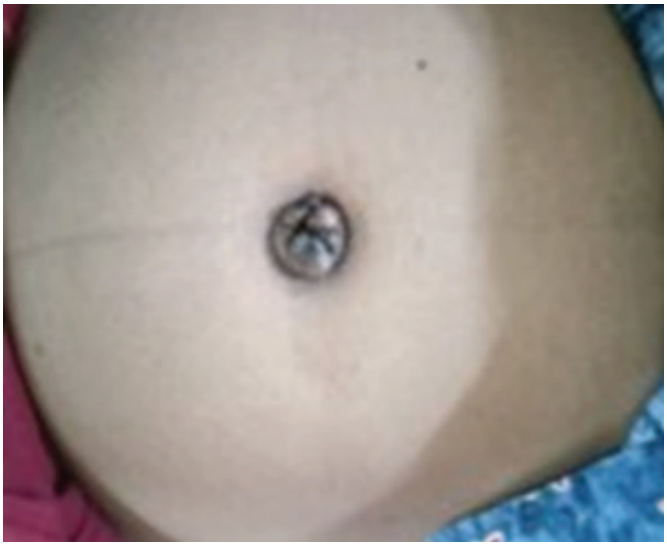

Fig: 1 [umbilical endometriosis]

On palpation, a firm, tender, irregular mass, approximately 2.5 cm in diameter was palpated at the umbilicus. The mass was mobile, non-pulsatile, and did not seem to be attached to deeper structures. No signs of abdominal hernias or other masses were noted during the abdominal examination. Gynaecological examination revealed a normal-sized uterus without palpable adnexal masses. No tenderness was noted during a bimanual pelvic examination.

Ultrasound Abdomen and Pelvis: A superficial, well-circumscribed hypoechoic lesion was identified at the umbilicus, consistent with a soft tissue mass. No abnormalities were found in the pelvic organs or in the abdominal cavity.

MRI Abdomen: Confirmed the presence of a 2.5 cm lesion at the umbilicus with characteristic features of endometrial tissue, showing well-defined borders and no evidence of malignancy. Uterus and adnexal structures within normal limits. No signs of any bladder/bowel endometriotic deposit.

Initially, medical management was done with dienogest 2mg OD for three months but no improvement with medical treatment. She was counselled regarding further treatment options of primary umbilical endometriosis. She opted for surgical treatment, wide local excision. During the surgical procedure, typical powder burnt deposits seen at the umbilicus, suggestive of endometriotic deposits. HPE showed endometrial glands and stroma in 10x and 40x power field, confirming the diagnosis of umbilical endometriosis.

A follow-up visit was scheduled 3 weeks post-surgery, during which the wound had healed completely with no signs of infection or recurrence. The patient was advised to monitor for any further symptoms or changes in the area. She was followed again 6 months postoperatively, with no recurrence of the umbilical mass or symptoms.

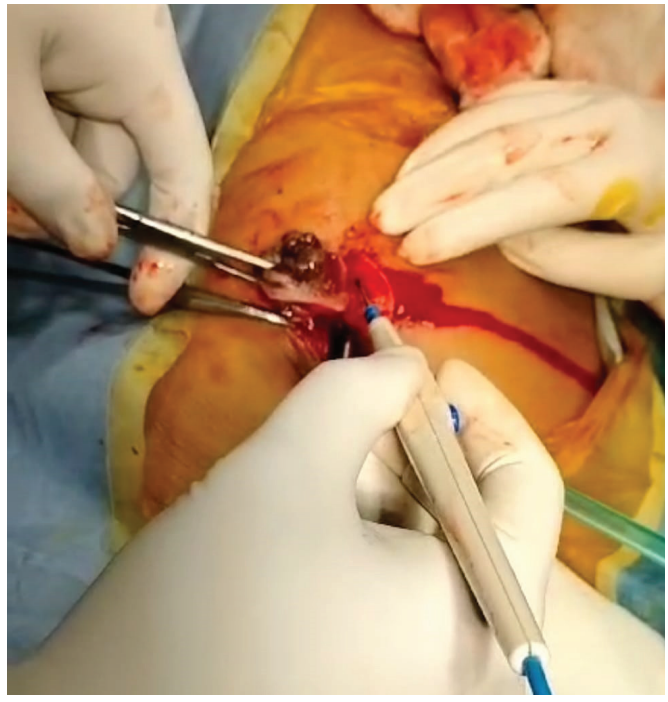

Fig: 2[excision of umbilical endometriosis]

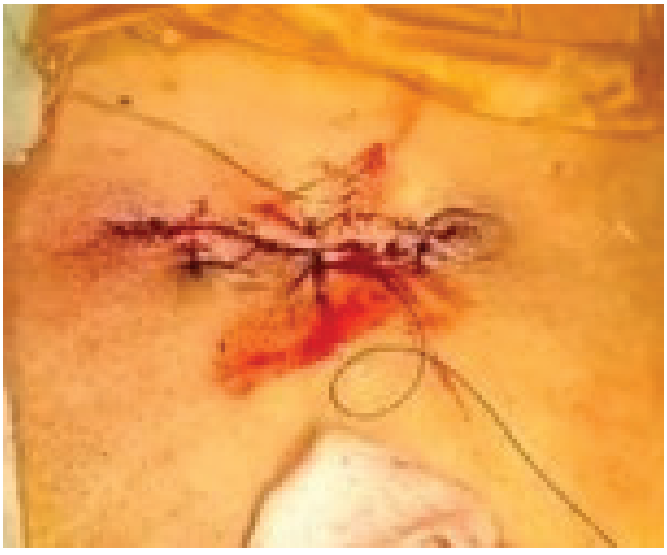

Fig: 3[skin closure after removal of lesion]

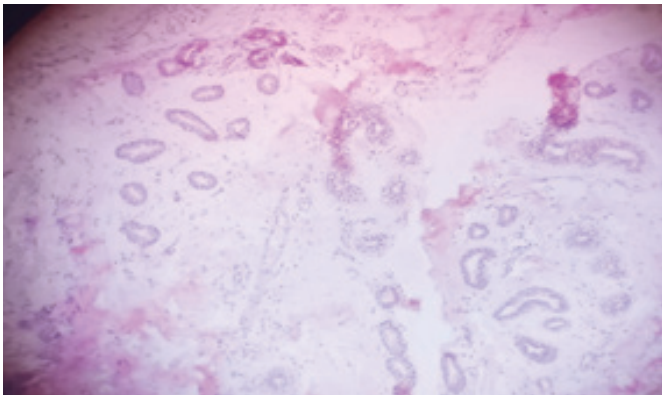

Fig: 4[endometrial gland & stroma under 10x]

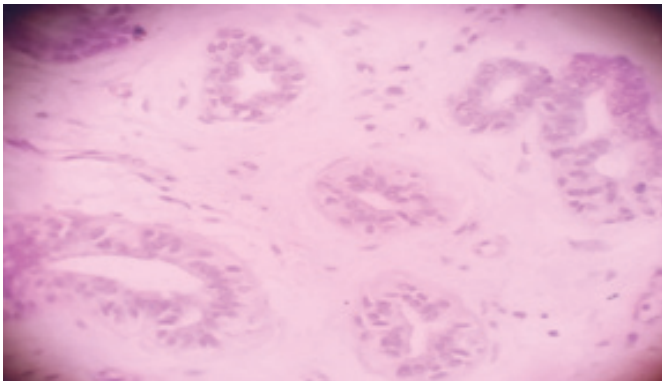

Fig 5[Endometrial gland & stroma under 40x]

Discussion:

Primary umbilical endometriosis is a rare disease, but the secondary variety occurs naturally in patients with pelvic endometriosis. It may originate from implantation of regurgitated endometrial cells, circulated by the clockwise peritoneal circulation up to the right hemidiaphragm, and then, progressive funneling towards the umbilicus by the falciform ligament and ligamentum teres of the liver 3 but, it still remains unclear. Another hypothesis states that distant lesions are established by the hematogenous and lymphogenous spread of endometrial cells, popularly known as the Halban's theory4. In our patient, there was a gradual transformation of the normal umbilicus into several small, pigmented, firm, painful nodules which concomitantly bleeds during mensuration. In this context, this multinodular form may be an exceptional observation in some cases.

Most patients experience a good outcome following surgical excision, with complete resolution of symptoms, namely, pain and cyclic swelling at the umbilicus. The prognosis is generally excellent, with a low risk of recurrence if the lesion is completely excised with clear margins. Further follow-up is recommended based on any signs of recurrence, particularly if the lesion was large or deep.

Conclusion:

Surgical excision is the cornerstone of treatment for primary umbilical endometriosis. A careful, well-planned surgical approach ensures complete removal of the ectopic endometrial tissue, minimizes the risk of recurrence, and offers good cosmetic results. With appropriate management, the prognosis is generally favourable, and most patients experience complete resolution of symptoms following surgery.

References

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