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Umbilical Hernia or Endometriosis Nodule: A Case Report

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Abstract: **Review Article**

Primary and secondary umbilical endometriosis is a rare clinical condition that accounts for 0.5 to 1% of all its locations. It is defined as the ectopic location of functional endometrial tissue at the level of the navel. Preoperative diagnosis is difficult, and its pathophysiology remains a challenge. We report a case of primary umbilical endometriosis discovered during surgical intervention for an umbilical hernia.

Keywords: Endometriosis, umbilical endometriosis, umbilical hernia, surgery.

INTRODUCTION

Endometriosis is a condition characterized by the presence, in an ectopic location, of functional endometrial tissue that exhibits the histological and biological characteristics of endometrium but remains anatomically separate from it. The locations of endometriosis, in order of frequency, are: pelvic (80 to 90%), gastrointestinal (5 to 15%), and urinary tract (2 to 4%). Cutaneous involvement accounts for only 0.5 to 1%. We report a case of primary umbilical endometriosis discovered during surgical intervention for an umbilical hernia, which was misdiagnosed preoperatively both clinically and by ultrasound examination.

Case Presentation

A 26-year-old patient, with no significant medical history, consulted for an umbilical bulge that appeared three months ago. The evolution was marked by an increase in size over the past few weeks and the occurrence of a few episodes of vomiting. The clinical examination found a subumbilical lump about 2 cm in diameter compatible with a hernia. This mass was not reducible and sensitive to palpation (Figure 1). The rest of the examination was normal. An ultrasound was requested, highlighting a peri-umbilical echogenic formation with a median dehiscence suggesting primarily a hernia. The diagnosis of umbilical hernia was retained. Surgical intervention revealed a subumbilical nodule without an umbilical hernia. The surgical procedure consisted of excising the nodule. Histological examination of the surgical specimen established the diagnosis of umbilical endometriosis, revealing endometrial glandular structures sometimes dilated or cystic centered by hematomas and pigment-laden macrophages known as

hemosiderophages testifying to old bleeding episodes. Postoperative recovery was uncomplicated.

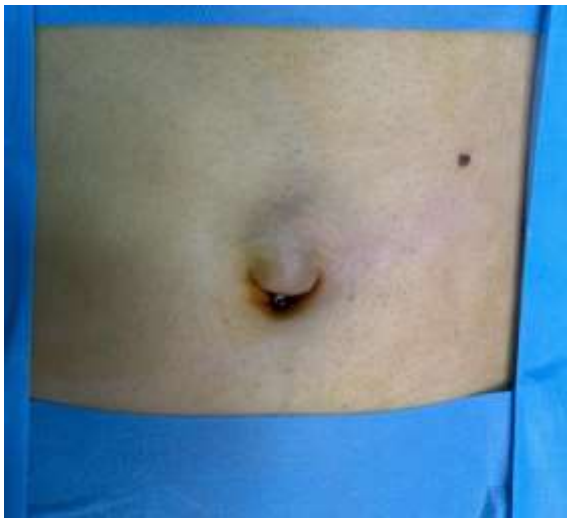

Figure 1: Preoperative view of the umbilical nodule

DISCUSSION

Umbilical endometriosis, also known as Villar's nodule, was first described by Villar in 1886. It is characterized by the ectopic presence of functional endometrial tissue. Cutaneous involvement is very rare and accounts for only 0.5 to 1% of cases. Isolated umbilical localization is exceptional. There are two types of umbilical endometriosis that need to be distinguished: primary, which is exceptional and occurs in women with no history of abdominal surgery, and secondary, which appears in women with a surgical scar [1, 3]. The pathophysiology of umbilical endometriosis remains partly unclear. Several theories have been proposed to explain its occurrence; one plausible theory involves ectopic implantation of endometrial cells from menstrual reflux. This theory could also explain pelvic peritoneal implants observed in patients who have undergone laparoscopy. The umbilical location might be explained by migration through the venous and lymphatic network around the navel or by metaplasia from coelomic cells to endometrial cells under infectious, toxic, or hormonal factors [2, 4]. The most common clinical aspect of umbilical endometriosis is a pigmented or nodular lesion developed at the navel level. Its symptomatology is characterized by periodic symptoms related to menstruation cycles. This cyclic symptomatology helps eliminate other diagnostic hypotheses such as melanoma, nevus, umbilical hernia, abscesses, or lipomas. Other symptoms (dysmenorrhea deep dyspareunia digestive urinary cyclic symptoms) can be found during questioning [4]. The differential diagnosis for primary umbilical endometriosis includes an umbilical hernia a hemangioma melanoma or an abdominal-pelvic tumor metastasis known as Sister Mary Joseph's nodule. The definitive diagnosis for umbilical endometriosis relies on histopathological examination. Surgical excision with clear margins remains the treatment choice; it involves removing affected tissue while preserving healthy areas around it when possible [3]. Preoperative medical treatment using danazol or LHRH analogs may reduce nodule size before surgery [3]. Local recurrence after complete surgical excision is rare; our patient underwent surgical excision without any reported recurrence over a year-long follow-up period [3].

CONCLUSION

Primary umbilical endometriosis is a rare condition with poorly understood pathophysiology. Neither clinical presentation nor imaging allows for preoperative diagnosis. The diagnosis should be considered when a painful umbilical nodule appears with cyclic symptoms in a woman, regardless of whether she has a history of abdominal surgery. Wide surgical excision is the treatment of choice and helps prevent recurrences. The definitive diagnosis relies on histological examination.

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