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CASE REPORT

Umbilical Endometriosis

RAI R *,SATHYAMOORTHY A** ,D'SOUZA C***

ABSTRACT

Endometriosis is a disorder in which abnormal growth of tissues, histologically resembling that of the endometrium, are present in locations other than the uterus. The lesions are usually found in the peritoneal surface of reproductive organs, but also can be found anywhere in the body. Primary cutaneous endometriosis is uncommon. The frequency which arises in the skin of all endometriosis is 1.1%, and those which arise in the umbilical region are about 30%. Umbilical endometriosis is a very rare surgical condition, but should be considered in the differential diagnosis of any umbilical nodule. We report a case of a 28yr old lady who presented with a bluish nodule at the umbilicus for 3 months, with no associated discharge. It was histopathologically confirmed as umbilical endometriosis.

Key Words: Endometriosis, Umbilicus, Cutaneous endometriosis

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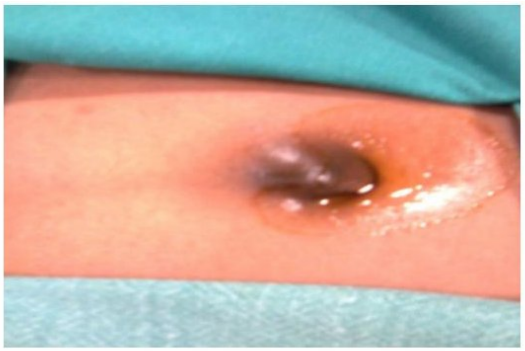
Introduction

In the late nineteenth century, the term endometriosis was coined by Sampson 1to characterize ectopic tissue possessing the histological structure and function of the uterine mucosa. It also includes those abnormal conditions which may result not only from the invasion of organs and other structures by this tissue, but also from its reaction to menstruation1. Endometriosis is a well recognized gynaecological condition that presents infrequently to general surgeons. Cutaneous endometriosis presenting to general surgeons is often mistaken for a suture granuloma, abscess, cyst, lipoma or incisional hernia[1].Umbilical endometriosis is rare, with an estimated incidence of 0.5 to 1.0 percent of all patients with endometrial ectopia[2], Subcutaneous endometriosis should be suspected in any female presenting with cyclic pain emanating from a mass in the vicinity of an abdominal surgical scar or the umbilicus[3]. We report our case to highlight the challenges involved in its diagnosis.

Case Report

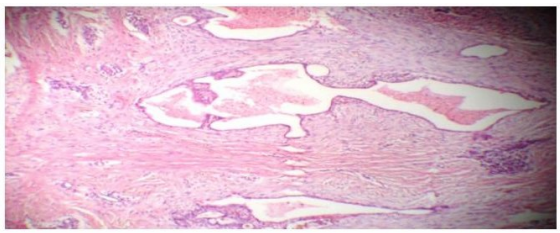
A 28 year-old-woman presented to the surgical outpatient clinic with the history of a painful umbilical nodule, of three months duration. She had

regular menstrual cycles without dysmenorrhoea. The patient had not conceived, following four years of married life. There was no past history of any surgeries. General physical examination was normal. Local examination revealed a 3 X 2 cm, non tender, not reducible, firm, lobulated umbilical nodule, without a cough impulse. There was no discharge or ulceration on the surface. Other systemic examination was unremarkable [Table/Fig 1].

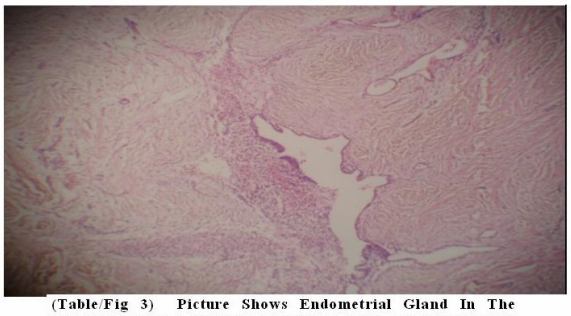


(Table/Fig 1) Photograph Showing The Umbilical Nodule

Her routine haematological investigations were normal. Ultrasonography gave the diagnosis as umbilical adenoma. Hence, no FNAC was done. The patient was subjected for excision biopsy, with a differential diagnosis of umbilical adenoma and umbilical endometriosis. The swelling was found to have no communication with the peritoneal cavity. The excised specimen was sent for histopathological examination, which revealed glandular structures lined by endometrial epithelial cells and,surrounded by a cellular stroma. These features were suggestive of endometriosis [Table/Fig 2],[Table/Fig 3].



(Table/Fig 2) Microscopic View Showing Endometriosis



(Table/Fig 3) Picture Shows Endometrial Gland In The Substance Of The Anterior Abdominal Wall. The Endometrial Gland Is Dilated, Has Columnar And Cuboidal Epithelium, Characteristic Stroma And Stromal Hemorrhage.

The patient was further evaluated to look for any other foci of endometriosis. The final diagnosis of isolated umbilical endometriosis was confirmed. The patient was discharged on the 3rd post operative day. Sutures were removed on the 7th post operative day. On 3 months follow up, the patient was asymptomatic.

Discussion

The prevalence of pelvic-endometriosis has been reported to be as high as 44% in asymptomatic women undergoing laparoscopy for non gynaecological symptoms, while the incidence of umbilical endometriosis is estimated to be only 0.5% to 1% of all women with an extragonadal endometriosis. The presentation of endometriosis to general surgeons is rare and atypical, and presents diagnostic difficulties[1].

Umbilical endometriosis occurs in women between 30 to 40 years of age. It is usually a solitary, firm, brownish

or bluish nodule ranging from 0.5 to 3 cm in size .Umbilical endometriosis is rare, with an estimated incidence of 0.5 to 1.0 percent of all patients with endometrial ectopia[3]. The mechanism of formation of umbilical endometriosis appears to be unknown, although there are two major theories: metastases and metaplasia. The metastasis theory suggests that the implantation is either by lymphatic or haematogenous spread[1],[2].

More commonly, cutaneous endometriosis occurs in a surgical scar from abdominal or pelvic procedures, which include hysterectomy, caesarean sections, episiotomy, and laparoscopy. Endometriosis is usually present in the pelvic organs, and is rarely described in the umbilicus, vagina, vulva and appendix[4]. Cutaneous endometriosis is a rare condition, especially in patients without a history of abdominal or pelvic surgery or known preexisting endometriosis[5]

The lesion is often slightly tender and painful. At the time of menstruation, the pain becomes more pronounced, and may be associated with swelling and slight bleeding of the lesion[6]. Rare cases have undergone malignant transformation, and give rise to endometrial carcinoma. The possibility of coexisting genital-pelvic endometriosis should be investigated. Hormonal therapy may be a consideration when there is coexistent pelvic endometriosis.

The histopathologic features of endometriosis can be reminiscent of the main phases of the menstrual cycle. The proliferative phase has a uniform stromal cell population and pronounced epithelial mitotic activity; the secretory phase has decapitation secretion within the glandular cells and 2 stromal cell types: a large cell and a small clear cell that are morphologically similar to the uterine "predecidual cell" and the "endometrial granulocyte," respectively. Disintegration of the epithelium and dissociation from the stroma resemble menstruation[3].

The differential diagnosis of umbilical nodules includes: embryological rests, irreducible umbilical hernia, pyogenic granuloma, primary malignancy such as malignant endometriosis in the umbilicus, umbilical polyp, melanocytic nevus, seborrheic keratosis, epithelial inclusion cyst, desmoid tumour, haemangioma, granular cell tumour, keloid, and foreign body granuloma or secondary metastatic tumour from an intra-abdominal malignancy. Surgical excision of the umbilical endometrioma, with sparing of the umbilicus, when possible is necessary for proper histopathological diagnosis that will dictate the plan of management[1],[3]. Local recurrence after adequate surgical excision is uncommon[2].

The possibility of coexisting genital-pelvic endometriosis should be investigated. The fact that up to 50% of these affected women may have concomitant pelvic endometriosis and further pre-operative diagnostic investigations in a non-emergent setting, is advisable; gynaecological referral should be made early and better preoperative planning can be carried out. This is important as concurrent pelvic endometriosis needs to be treated to prevent reseeding of endometrial tissue from the pelvis. In suspected cases, where emergency surgical exploration is not warranted, MRI is recommended as the best investigation. This modality of imaging has been shown to be useful for delineating the

size and location of extra-pelvic endometriosis, and in excluding intra-abdominal extension of the disease[3],[7]. Hormonal therapy may be a consideration when there is coexistent pelvic endometriosis.

Conclusion

Endometriosis at this site is not only rare; it can present diagnostic pitfalls to the general surgeon, as this case illustrates. Thus, it should be considered in the differential diagnosis of all pre-menopausal women presenting with umbilical swellings. For some patients, there may be no relationship between the swelling and menstruation, as alluded to above in our case. The diagnosis is often made incidentally by histologic examination after surgical exploration and excision of the lesion.

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