International Journal of Clinical Obstetrics and Gynaecology

ISSN (P): 2522-6614
ISSN (E): 2522-6622

www.gynaecologyjournal.com
2021; 5(4): 97-99
Received: 19-05-2021
Accepted: 21-06-2021

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Endometrioma: Chocolate cyst case report

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DOI: https://doi.org/10.33545/gynae.2021.v5.i4b.970

Abstract
Background: Abdominal wall endometriomas are quite uncommon. Awareness of the details of this rare condition is therefore essential for prompt diagnosis and adequate treatment.
Introduction: Endometriosis though a condition commonly seen in the pelvic region can also occur at extra-pelvic sites giving rise to a diagnostic dilemma.
Case Report: A case of abdominal wall endometrioma diagnosed clinically and treated by wide surgical resection is presented to highlight the importance of clinical evaluation in the diagnosis of this condition.
Discussion: The presentation, investigations, and management are discussed briefly.
Conclusion: Clinical evaluation confirmed by supportive imaging is diagnostic.

Keywords: endometrioma, chocolate cyst, abdominal wall

Introduction
Endometriosis, first described by German pathologist Carl von Rokitansky as cystosarcoma adenoids uterinum, defined as an estrogen-dependent condition in which ectopic endometrial glands and stroma are found outside the uterus. Most endometrial deposits are found in the pelvis (ovaries, peritoneum, uterosacral ligaments, pouch of Douglas, and rectovaginal septum) [1]. The incidence of endometriosis is reported as 4%–17% of all women during their reproductive age. The ovary is variously reported to be involved in 17% to 44% of endometriosis patients [2]. Classical studies suggested that 30% to 50% of women with endometriosis are infertile [3]. The endometrial implants may be categorized as cyst comtic, mixed or solid, with the cystic implants being most common. Although, in some cases endometrial implants may occur spontaneously. Endometriosis can be intra or extra pelvic in location. Most cases are intra pelvic, usually involving ovary, pouch of Douglas, pelvic peritoneum, uterosacral ligament, urinary bladder, rectum, broad and round ligament.
The presence of endometrium outside the uterine cavity can be explained by many theories; the mechanism most widely accepted is that of retrograde menstruation [4]. Other authors believe that it is a result of celomic metaplasia [5]. The structure most frequently affected by endometriosis is the ovary, but involvement of the fallopian tubes, pelvic serosa, rectum, retroperitoneal structures, and lungs has also been described. Endometriotic cysts typically contain old blood and are also referred to as chocolate cysts or endometriomas [6]. Generally, endometriomas are diagnosed by ultrasonograpic examination, but sometimes it is difficult to make a differential diagnosis preoperatively.

Case report
A 30-year-old, 105 kg in weight, 1.75 cm in height, para 0 woman had been referred to our hospital with a pelvic mass. Married life of 13 yrs with the history of 1st baby 7 yrs back/missed abortion / 3 months of pregnancy and 2 nd baby 5 yrs back/ 3 months pregnancy /missed abortion / followed by suction and evacuation). She was suffering from secondary infertility since 4 yrs and complain of hypomenorrhoea associated with severe pain before and after menses. On day of admission a lump of 7*8 cm in right iliac fossa, tender++, restricted mobility from side to side. In Per speculum examination no abnormality detected and Per-vaginal pap smear taken. Uterus anteverted, bulky, firm, mobile, non-tender, In right fornix a mass of 7*8 cm felt, tender, lower limit reachable and Left fornix free, non-tender. In pelvis ultrasonographic examination a large cystic lesion of size 5.3*8.6*10 cm with internal echoes on right sided adnexa, a cystic lesion with internal reticular pattern of size 2*3*2 cm in left adnexa and Bicornuate / septate uterus large ovarian chocolate cyst.

In transvaginal ultrasonographic examination, there was a bilaterally cystic mass that is 10 × 8 cm in right adnexa and 2× 3 cm in left adnexa. Hysterosalpingogram (HSG) test were as follows Left sided hydrosalpinx with no free spillage suggestive of left fallopian tube blockage and right sided fallopian tube patent. Acid Fast Bacilli were not seen in the histologic examination of endometrial biopsy by zn stain and Bact.

Decision for excision of endometriomas was taken, Abdominal cystectomy was performed under general anesthesia, and was successfully performed (fig.1) Cut section of the cysts revealed chocolate coloured fluid (fig 2), and histopathological examination confirmed the diagnosis of ovarian endometriosis. Postoperative recovery was unremarkable.

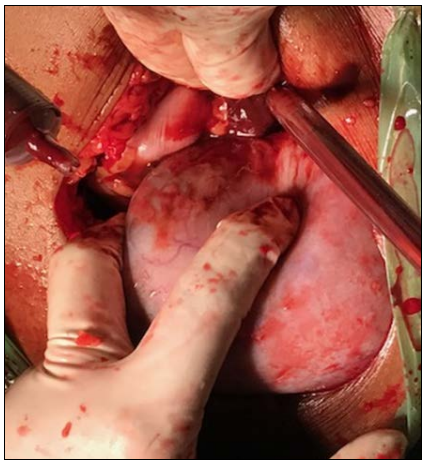

Fig 1: cystic mass removal

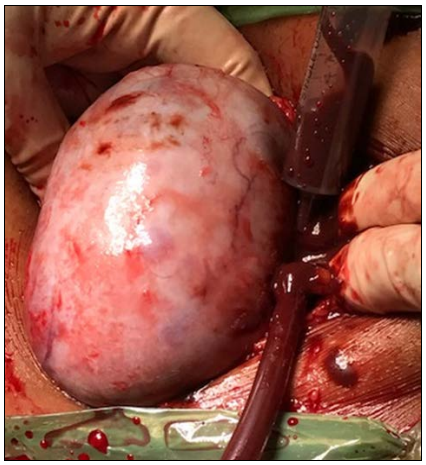

Fig 2: cysts revealed chocolate coloured fluid

Discussion

The presence of endometrial glandular and stromal tissue outside the uterus is called endometriosis. It is seen in women of active reproductive age. The common sites for endometriosis are the ovaries, pelvis, lower intestinal tract which includes the sigmoid colon, and urinary system especially the bladder. Endometriosis is classified into 4 stages based on the severity, amount, location, depth, and size of growths: stage I (minimal), stage II (mild), stage III (moderate), and stage IV (severe) [7].

Endometriosis is a relatively common gynaecological condition affecting 6-10% of women in the reproductive age group. It is the presence of functional endometrial glands and stroma outside the uterine cavity and is usually characterized by chronic pelvic pain and infertility. Risk factors for endometriosis include nulliparity, previous pelvic surgeries, imperforate hymen, cervical stenosis and gynaetresia. Several theories have been proposed to explain the pathogenesis of the condition with the most popular theory being the retrograde menstruation. Others are the theory of coelomic metaplasia, immunologic theory, mullerianosis and transplantation theory. Another presentation of endometriosis is as a pelvic mass with the formation of an endometrioma.

Endometriomas, commonly referred to as “chocolate cysts” are a common presentation of endometriosis seen in about 17–44% of endometriosis and refers to cysts on the ovaries associated with ectopic endometrial tissue and containing degraded hemorrhagic content hence the appearance of a chocolate-coloured effluent when ruptured. It is thought that endometriomas form from deposition of endometriotic deposits with subsequent invagination of the underlying ovarian cortex. Although majority of chocolate cysts arise from the ovaries, a significant proportion have been found in other sites including the peritoneum overlying the anterior and posterior cul de sac, within the broad ligament and inguinal canal as well as uterine serosa. In addition, these cysts could be bilateral and are usually small to medium in size. However, a few have been reported to grow to very large sizes 8. As in our case report presents an atypical presentation of chocolate cyst be bilateral small to medium in size.

Interestingly, although the abdomino-pelvic ultrasound scan reported that the mass was extra-ovarian which was confirmed at surgery, the abdominal CT scan erroneously reported the organ of origin as the ovary. Radiological features noted in this patient which were in keeping with those found in endometriosis include the fact that it was bilaterally unilocular containing internal echoes though not the classical “ground-glass” appearance seen in endometrioma.

The differential diagnosis may include a variety of conditions such as hernia, lipoma, desmoid tumour, or primary or metastatic malignancy. Therefore a careful history with proper interpretation of radiological findings can help in making a correct preoperative diagnosis.

Conclusion

Extra- ovarian chocolate cysts can grow to huge sizes presenting diagnostic dilemma. Transvaginal ultrasound scan is still a very viable means of evaluating gynaecological patients and should not be totally replaced by more advanced radiological techniques such as CT scan and MRI. The presence of endometriomas or chocolate cysts does not always indicate severe pelvic disease. Hence, extra ovarian endometrioma should be entertained as a possible differential diagnosis in the evaluation of abdominopelvic masses.

Conflict of Interests

The author hereby declare that they do not have any conflict of interests.

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