Original Research Paper

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BEYOND MENOPAUSE: THE SURPRISING PRESENCE OF A CYSTIC TERATOMA

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ABSTRACT Cystic teratomas, also known as dermoid cysts, are a type of germ cell tumor that occurs in the ovaries and is one of the most common benign ovarian neoplasms that can occur in any age group and appear in various sizes. While they are most commonly diagnosed in women of reproductive age, they can also be found in postmenopausal women. Diagnosing as soon as possible is essential due to complications that can occur, such as rupture, torsion, internal hemorrhage and malignant transformation. This case report discusses the clinical presentation, diagnostic process, and management of a cystic teratoma in a 63-year-old postmenopausal woman.

KEYWORDS : Post menopausal, Teratoma, Ovarian Tumours

INTRODUCTION

Teratomas can be of 3 types: Mature- Solid or Cystic, Immature and Monodermal(Struma Ovarii/ Strumal Carcinoid). These tumors are typically benign and consist of well-differentiated tissues from at least two of the three germ layers: ectoderm, mesoderm, and endoderm. (5) Monodermal teratomas contain highly specialized tissue type. Struma Ovarii contains thyroid tissue and carcinoid teratomas are hormonally active with secretion of serotonin, bradykinin and other peptide hormones from the argentaffin cells as found in gastrointestinal tract or bronchial tissues. (5) Common components include hair, sebaceous material, and sometimes teeth or bone. Although generally benign, there is a small risk of malignant transformation, which is slightly higher in postmenopausal women.

CASE REPORT

A 63-year-old female patient, post menopausal since 10 years, presented to the gynaecology department with complaints of lower abdominal pain since 1 year. The pain had been vague for the first 6 months and increased gradually. The pain had increased significantly in the last one week before hospitalization. The pain was mild and vague at first but gradually started increasing on exertion and was relieved on rest. Pain was not associated with any altered bowel habits or appetite changes. Pain did not respond to usual analgesics. Due to the patient's symptoms, she was admitted to the ward for further investigation. The patient had stable vital signs at the time of admission. On examination, patient appeared well built and well nourished. Patient gave history of weight gain of 2 kilograms in the past 6 months. The patient's body mass index (BMI) was 34.2 kg/m2. On physical examination, there was a vague 15x15 cm mass palpable over the suprapubic region. On per vaginal examination , a mass was palpable in right fornix, 20x10 cm in size, firm to cystic in consistency. Mass was mobile , extending from the midline to left side. Distinct groove sign was elicited. Uterus was atrophic, and all other fornices were free and non tender.

For further investigation, a whole abdominal ultrasonography was done. Ultrasonography revealed a multiloculated cystic mass with internal echoes with approximate dimensions of 13.4×12.3×8.3 cm, seen anterior and superior to uterus. Adjacent to the anterior area of the mentioned area, the image of a echogenic soft tissue with measuring 3.3×2.6cm was seen. Multiple echogenic- ? calcifications were noted posterior to cystic mass. Vascularity was seen in soft tissue and in the septae. Bilateral ovaries could not be visualized separately. Sonography of abdomen was followed by MRI of Pelvis which revealed a large,well defined multiloculated cystic lesion measuring 14.2 x 11.1 x 8.5 cm with peripheral solid components noted in pelvis extending to suprapubic region. Cystic component showed T2 Hyper and T1 Hypointense signals. Solid component appeared heterogenous with mixed fat and soft tissue signals. Bilateral ovaries were not visualized separately. CT correlation showed tiny calcific foci.

Serum tumour markers tested (CA-125, Alpha feto Protein, Beta HCG, LDH) were within normal range. Other blood investigations such as complete haemogram, blood glucose levels, renal and liver function tests were unremarkable.

So due to suspicion of an abdominal lesion and according to the clinical presentation and the results of imaging reports, the patient underwent laparotomy. An infraumbilical vertical midline incision was performed. As can be seen below, a large cyst of left ovarian origin with numerous adhesions was seen with approximate dimensions of 15 x 12 x 8 cm (Figure 1) , twisted thrice around its pedicle (Figure 2). The adhesions were released, and the cyst was completely removed from the patient's abdomen by salpingo-oophorectomy and was sent for frozen section. Uterus and right ovary were found to be atrophic. Bilateral fallopian tubes appeared normal. After confirmation of benign nature of ovarian cyst sent for frozen section, this was proceeded with hysterectomy and contralateral salpingo-oophorectomy. After providing necessary hemostasis, the peritoneum wash was given, and the fluid was collected and sent for cytology for presence of malignant cells. The whole operative procedure remained uneventful.

After the operation, patient was transferred to post operative ward. Intravenous antibiotics -Ceftriaxone and metronidazole treatment was started and continued for 5 days. Thromboprophylaxis given with subcutaneous Low Molecular Weight Heparin 40mg for 3 days. The patient was discharged from the gynaecology department in good general condition after per oral tolerance and defecation. There was no complication in the 6-month follow-up.

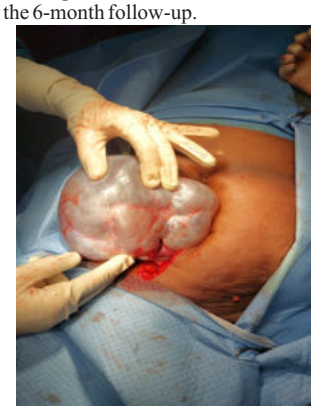

Figure 1

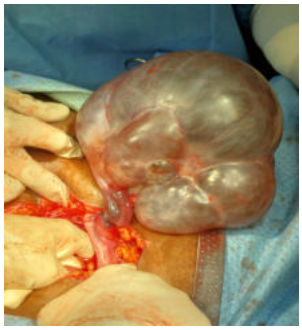

Figure 2

On Histopathology,
Macroscopy – A cystic mass measuring 14x13x7 cm. On external examination, smooth, congested vessels were seen. On cut section, straw coloured fluid let out of the multiloculated cyst. Inspissated secretions seen in one cyst. Another cyst showed yellowish cheesy secretions. No solid areas and no papillary projections were seen.

Microscopy- Neoplasm composed of large areas of follicles with colloid , a few islands of cartilage, ciliated columnar epithelium, lymphoid collection and fatty tissue. A few adnexal glands and mucinous glands were also noted. Formalin fixed sections studied from remnants of frozen section showed acini filled with colloid. (Figures 3,4,5)

The final histopathology report was suggestive of a mature multiloculated cystic teratoma.

Additionally, the pathology report revealed nothing about free fluid that was sent for malignancy cell cytology.

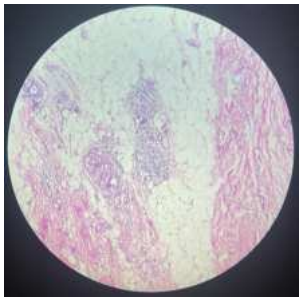

Figure 3

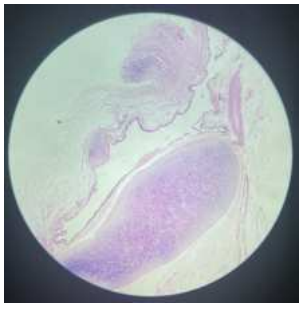

Figure 4

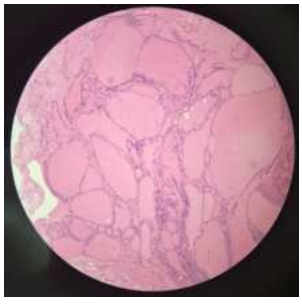

Figure 5

DISCUSSION

Majority of these tumours- about 95% are benign cystic teratomas , as known as “dermoid cysts”. Microscopic investigations predominantly show ectodermal components but endodermal and mesodermal elements can also be seen. (1)

Mature cystic teratoma may contain skin, sweat glands, hair follicles, nails, teeth, bones, sebum and blood. (1) Tumours may be asymptomatic or present with abdominal pain, discomfort and swelling due to enlargement of cyst and its compressive effect or cyst wall rupturing and secretion of its contents into the abdominal cavity (7). Prognosis depends upon the extent of the disease and its complications. Benign cystic teratomas generally have a good prognosis after surgical management with a slight risk of recurrence in 2 to 10 years. On the contrary, cystic teratomas with malignant transformation have variable outcomes depending upon the stage, pattern of growth, and vascular invasion of the tumor.

Cystic teratomas can be associated with a spectrum of complications. Most common complication is torsion of large ovarian tumours leading to haemorrhagic or gangrenous infarction. Rupture of cyst can lead to spillage of its contents into peritoneal cavity leading to acute or chronic peritonitis. The risk of infection is 1-4% and route can be haematogenous, via lymphatics or via direct extension to adjacent structures. Chronic inflammation can lead to worsening of adhesions, increasing the risk of intestinal obstruction. Malignant transformation, though rare, has been reported in <3% cases and patients with tumour size >10mm are at a higher risk of developing malignancy. (4)

Timely and accurate diagnosis significantly decreases morbidity and mortality.

CONCLUSION

This case highlights the significance of considering cystic teratomas in the differential diagnosis of ovarian masses in postmenopausal women. Thorough preoperative evaluation, careful surgical intervention, and comprehensive histopathological examination are crucial in managing these cases effectively. Despite the benign nature of most cystic teratomas, the potential for complications, including malignant transformation, warrants careful monitoring and follow-up.

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