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Unusual Presentation of Huge Dermoid Cyst Weighing 10 kg in a 52 yo Old Post-Menopausal Woman Mimicking a Mesenteric Cyst

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Abstract

Mature cystic teratoma of the ovary is a common benign adnexal tumor in females. Malignant transformation in a mature cystic teratoma of the ovary occurs in only 1 - 2% of cases. The most common malignant transformation is squamous cell carcinoma (70-80% of cases), seen mostly in postmenopausal women with large-sized cysts ***[1]****.*

We present a case report of a 52-year-old post menopausal multiparous woman with distension of abdomen, Her abdominal examination revealed a large mass in the abdomen with indistinct margins, corresponding to 32 weeks size of gravid uterus, with smooth surface and free mobility, all tumor markers were normal and imaging studies suggested mesenteric cyst. On exploratory laparotomy, a huge 10 kg right ovarian teratoma was removed which on histopathology showed squamous cell carcinoma

Introduction

Mature cystic teratoma of the ovary is a common benign adnexal tumor in females. Malignant transformation in a mature cystic teratoma of the ovary occurs in only 1 - 2% of cases **[**1**]**. The most common malignant transformation is squamous cell carcinoma (70-80% of cases), which occurs mostly in postmenopausal women with large-sized cysts.

The presenting symptoms of a dermoid cyst are usually non-specific. Many patients remain asymptomatic or may be diagnosed after an incidental finding on routine examination or intra-operatively. Dermoid cysts can reach a considerable size and cause symptoms such as abdominal fullness, abdominal pain and other pressure-related urinary and rectal symptoms. Complications of dermoid cysts include torsion, rupture, infections and rarely, a malignant transformation which has been reported to occur in 1 - 2% of all cases **[**1**]**.

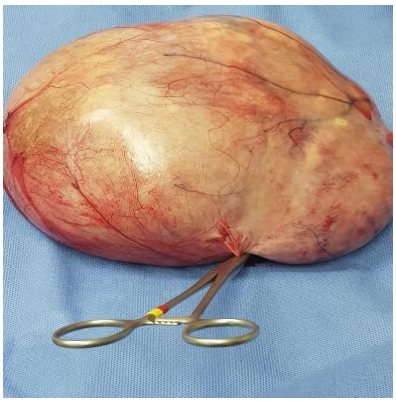

Figure 1

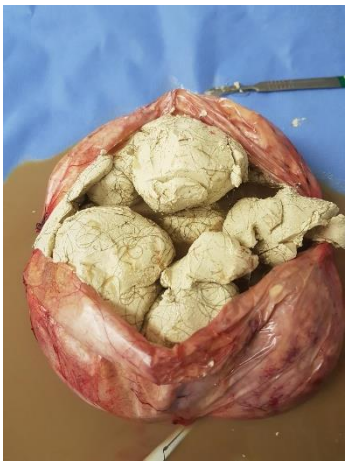

Figure 2

Case Presentation

We present the case of a 52-year-old postmenopausal multiparous woman who came with distention of the abdomen which had gradually increased over 6 years. On general physical examination, her vitals were unremarkable however abdominal examination revealed a large freely mobile mass with indistinct margins and smooth surface, extending to the epigastrium and firm inconsistency.

On gynecological examination, there was no uterovaginal descent on speculum examination. Vaginal examination revealed a palpable uterus, separate from the mass and there was no fullness in bilateral fornices as well as the Pouch of Douglas. There was no involvement of the rectal mucosa on rectal examination.

All routine laboratory investigations were done and were found to be within normal limits. Tumor markers for epithelial ovarian malignancy were normal, i.e., Serum CA 125-17.4 U/ml, Serum CEA-1.10 ng/ml, LDH 257 U/l, HCG 3.65 mIU/ml, AFP 0.8 ng/ml, CRP 105.43 mg/l. Ultrasound findings were suggestive of a large cystic mass, with turbid fluid and floating solid bodies with no vascularity. Right ovary not seen separately. The left ovary had been removed in surgery 15 years ago due to a cyst. Ultrasound findings were suggestive of large bowel obstruction. This information was compiled to determine the risk of malignancy using the "risk of malignancy 1" (RMI 1) index and was calculated to be 157.5 which was suggestive of low risk of malignancy as scores ≥ 200 indicate a higher risk of malignancy. Computerized Tomography (CT) with and without contrast of abdomen and pelvis was done which was suggestive of a large, midline abdominal cystic mass of size 32.5 × 20.7 × 21.5 cm with thickened wall and daughter cysts within. It was extending from liver to pelvis giving the differential diagnosis of hydatid cyst or mesenteric cyst. There was no evidence of metastatic lesions in the abdominal or pelvic cavity and no free fluid was seen in the abdominal cavity. The uterus was normal but the mass appeared attached to the fundus of the uterus

During exploratory laparotomy, the abdomen was opened by a midline incision and the mass was identified as a large, freely mobile, left ovarian cyst occupying the whole of the abdomen with no adhesions. No ascites, peritoneal adhesions, or implants were seen. On the right side, no fallopian tube or ovary was seen, consistent with prior salpingoophorectomy and the uterus was noted to be atrophic. Complete debulking surgery was performed, and the mass was removed with the intact capsule. Hemostasis was secured, peritoneal washings were collected, and an omental biopsy was also sampled. The cyst had the appearance of mature teratoma and on the cut, section revealed viscous fluid with a cheesy consistency with hair embedded within. The entire specimen was sent for histopathology which showed signs of squamous cell carcinoma within the cyst. The patient was referred to an oncologist.

Discussion

In our patient, although the risk factors were present, radiological studies and tumor markers suggested mesenteric tumor or hydatid cyst. In our patient, the histopathology examination showed malignancy even though all tumor markers were normal and radiological studies were consistent with benign features. In his study, Zubair **[**2**]** et all reported a similar case of a 46-year lady who presented with pain in the lower abdomen and was found to have a complex adnexal mass measuring 16x9 cm on Ultrasound and CT scan. This was later shown to be malignant. Based on these findings, the older age of the patient should be regarded as an important predictor of malignant transformation in mature cystic teratoma. Adequate sampling followed by histopathology plays an important role in the diagnosis of such a rare tumor.

Even though Malignant transformation of the ovarian dermoid cyst (mature cystic teratoma) is rare and most often established in postmenopausal women after surgery, an adequate preoperative workup is necessary as well as post-operative detailed histopathology. Another study **[**3**]** reported the case of a 58-year-old woman showing abdominal pain associated with constipation episodes. The diagnosis of the dermoid cyst was established upon ultrasonography. In this case, also, the histopathology confirmed the presence of a well-differentiated epidermoid carcinoma.

Based on current guidelines an RMI score ≤ 200 is often associated with the benign presentation of mature cystic teratoma. Additionally, gross findings have also been used as a prognostic tool when classifying a mature teratoma as either benign appearing or malignant appearing however in line with the literature, our study highlights the importance of the age of the patient, the size of the dermoid cyst and its growth rate as important risk factors for malignant potential of mature teratoma. This is evident from the findings seen in this patient since the RMI score for this patient was indeed ≤ 200 and on gross appearance, the mass had typical characteristics of a benign mature cystic teratoma.

Conclusion

A pre-operative diagnosis of a dermoid cyst can easily be made by characteristic ultrasound and CT appearances, but malignant change is very difficult to differentiate, despite the appearance and RMI score ≤ 200, from uncomplicated tumors on imaging and hence the emphasis on diagnosis, should have relied on postoperative histopathology.

References

1) Tangjitgamol S., et al. “Squamous cell carcinoma arising from dermoid cyst: Case reports and review of literature”. International Journal of Gynaecological Cancer 13.4 (2003): 558-563.

2) Squamous Cell Carcinoma Arising in Background of Mature Cystic Teratoma. J Coll Physicians Surg Pak. 2016 Nov;26(11):929-930. Zubair M[1], Hashmi SN[1], Afzal S[1], Muhammad I[1], Ud Din H[1], Hamdani SN[1].

3) [Degeneration of dermoid cysts: a case study of malignant transformation]. Gynecol Obstet Fertil. 2007 Oct;35(10):1005-8. Epub 2007 Oct [Article in French] Argoitia X[1], Duga I, Labeyrie E, Toledo L, Couteau C, Querleu D.

4) A risk of malignancy incorporating CA125, ultrasounand menopausal status for accurate preoperative diagnosis of ovarian cancer BrJObstetGynaecol1990;(10);922-9 JacobsI, OramD, Fairbanks J ,Frost C,GrudzinskasJG.