

Case Report

An unusual and rare presentation of mature cystic teratoma in a post-menopausal woman

Abdul H. Quraishi, Sanjib K. Jena*, Girish Umare, Sushrut Borkar

Department of General Surgery, Government Medical College and Hospital, Nagpur, Maharashtra, India

Received: 09 November 2022

Accepted: 07 December 2022

*Correspondence:

Dr. Sanjib K. Jena,

E-mail: hariom.sanu@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

It is rare to encounter benign forms of mature cystic teratoma in elderly women. It has been reported that the risk of malignant transformation is doubled in patients with mature cystic teratoma aged over 50 years. We reported a case of a 52-year-old woman with a large pelvic mass. The imaging and operative findings have been described. The diagnosis was confirmed on histopathology as mature cystic teratoma.

Keywords: Mature cystic teratoma, Postmenopausal, Malignant change

INTRODUCTION

More than 95% of teratoma are mature cystic teratoma or dermoid cyst. The 20-25% of all ovarian neoplasms are dermoid cysts. It is the most common ovarian tumour of young women.¹ It affects mainly reproductive age group females. It is rare in pre pubertal ladies. It can arise in postmenopausal women occasionally. In this teratoma ectoderm, mesoderm, endoderm all are involved though greater percentage is shared by ectoderm. That is reason they are alternatively called as dermoid cysts.² Skin, hair, hair follicles, and sebaceous or sweat glands are most commonly found.³ Malignant transformation usually occurs late than its benign counterpart.⁴

CASE REPORT

A 52 years old female P3L3 came to casualty with chief complaints of distension of abdomen since 4 months, dull aching pain over whole abdomen since 4 months, history of burning micturition on and off since 2 months, history of constipation since 2 months.

There was no history of bleeding or discharge per vaginum. Menarche was at age 10 years and her cycles were regular. She attained her menopause at 45 years.

On examination patient was vitally stable. She was pale and had no icterus. There was no pedal oedema. On inspection abdomen was grossly distended with fullness in the flanks. There were no visible veins over abdomen.

There was a soft cystic swelling of size 28×25 cm extending from just below the xiphisternum till the pubic symphysis, moving with respiration, nontender, surface was smooth, margins were well defined, it was soft in consistency and dull on percussion.

Ultra sound of abdomen and pelvis revealed there was a large anechoic cystic lesion of size 26×10×12 cm with multiple thin and thick septations within arising from pelvis and occupying hypogastric, umbilical, epigastric and bilateral lumbar region. On colour Doppler vascularity was noted within the septa. Left ovary was not separately seen from the lesion. Features suggestive of mucinous cystadenocarcinoma of ovarian origin.

Contrast enhanced CT scan of abdomen and pelvis showed that there was a large multilobulated, heterogeneous, predominantly multicystic lesion seen involving abdominal cavity measuring approx. 22×17×26 cm (Figure 1). Multiple internal enhancing septations with maximum thickness of 4-5 mm were seen. Lesion

was abutting and displacing bilateral kidneys and pancreas posteriorly. Posteriorly it was also abutting aorta and its bifurcation. Anteriorly it was abutting anterior abdominal wall bilaterally. There was no significant abdominal lymphadenopathy. A possibility of mesenteric liposarcoma was kept. The uterus and bilateral ovaries appeared normal in size and shape. No adnexal lesion was seen.

CA-125 was 33.95 u/ml. Haemoglobin was 11 mg/dl, WBC were 8000/cmm, platelet were 3.5 lakhs, serum urea was 27 mg/dl and serum creatinine was 0.7 mg/dl.

Fine needle aspiration cytology (FNAC) showed features of mucinous neoplasm with a possibility of a malignant lesion.



Figure 1: CECT abdomen + pelvis of multi-cystic lesion involving whole of abdomen and pelvic cavity.

Patient underwent exploratory laparotomy. There was a cystic mass of size 27x27x14 cm of tubo-ovarian origin on the left side. Mass was multilobulated soft in consistency and trans-illuminant. Left ovary was not seen. Uterus and right ovary were normal.

Mass was excised. Total abdominal hysterectomy and bilateral salpingoophorectomy was done.

Cut open specimen showed mucinous material along with multiple hair tufts suggestive of Rokitansky protuberance.



Figure 2: Gross appearance of the tumour showing hair tuft and mucinous material.



Figure 3: Cut section of the tumour showing hair tuft and Rokitansky protuberance.

Gross specimen showed mucinous material along with multiple hair tufts suggestive of Rokitansky protuberance, which is solid protuberance from ovarian cyst (Figure 2).

On cut section abundant mucinous material and hair tuft was present (Figure 3).

Microscopic examination showed that cysts were lined by benign mucinous epithelium (Figure 4). The final diagnosis was mucinous cystadenoma with mature cystic teratoma of left ovary.

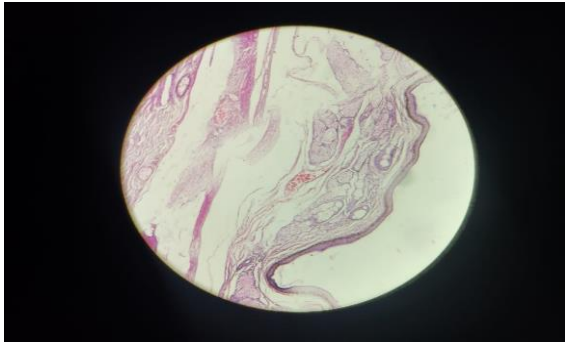


Figure 4: HPE of the tumour with H and E stain. Shows- cysts are lined by benign mucinous epithelium. No infoldings, no nuclear atypia seen.

DISCUSSION

Mature cystic teratoma is the most prevalent germ cell tumour in women of reproductive age. Malignant transformation starts at the postmenopausal period with an average age of 55 years; the most common malignant transformation occurs to squamous cell carcinoma.⁵

In our case, as reported on the histopathology report, cysts were lined by benign mucinous epithelium and showed no stratification and no infolding or nuclear atypia was seen hence the tumour was considered benign. It has been reported that about 1% to 2% of mature cystic teratomas ultimately transform into malignant forms. This transformation usually begins from the “dermoid plug”.⁶ Since the malignant transformation is rare and the malignant form resembles the appearance of the benign form, it is challenging to make a preoperative diagnosis. Malignant transformation usually occurs after menopause and when it occurs, the prognosis is grave.⁷ Rim et al reported that the malignant transformation occurred at an average age of 56.8 years, and 63% of the cases were older than 40 years at the time of diagnosis.⁸

CONCLUSION

It was also noteworthy that the tumour in our patient was benign despite its largest diameter of 31 cm. Mature

cystic teratomas are rare in the elderly women although they may well occur in some patients and this case highlights the importance of the awareness of the possibility of a benign form of the disease despite advanced age.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Bal A, Mohan H, Singh SB. Malignant transformation in mature cystic teratoma of the ovary: report of five cases and review of the literature. Arch Gynecol Obstet. 2007;275:179-82.
2. Novak ER, Woodruff JD. Novak's Gynecologic and Obstetric Pathology with Clinical and Endocrine Relations. 8th ed. Philadelphia, PA: WB Saunders Co. 1979;476-503.
3. Saba L, Guerriero S, Sulcis R. Mature and immature ovarian teratomas: CT, US and MR imaging characteristics. Eur J Radiol. 2009;72(3):454-63.
4. Dos Santos L, Mok E, Iasonos A. Squamous cell carcinoma arising in mature cystic teratoma of the ovary: a case series and review of the literature. Gynecol Oncol. 2007;105:321-4.
5. Hackethal A, Brueggmann D, Bohlmann MK. Squamous cell carcinoma in mature cystic teratoma of the ovary: systematic review and analysis of published data. Lancet Oncol. 2008;9(12):1173-80.
6. Peterson WF, Prevost EC, Edmunds FT, Hundly JM Jr, Morris FK. Benign cystic teratomas of ovary-a clinicostatistical study of 1,007 cases with a review of the literature. Am J Obstet Gynecol. 1995;70:368-82.
7. Wu RT, Torng PL, Chang DY, Chan CK, Chen RJ, Lin MC, Huang SC. Mature cystic teratoma of the ovary: a clinicopathologic study of 283 cases. Chung Hua I Hsueh Tsa Chih (Taipei). 1996;58:269-74.
8. Rim SY, Kim SM, Choi HS. Malignant transformation of ovarian mature cystic teratoma. Int J Gynecol Cancer 2006;16:140-4.

Cite this article as: Quraishi AH, Jena SK, Umare G, Borkar S. An unusual and rare presentation of mature cystic teratoma in a post-menopausal woman: a case report. Int Surg J 2023;10:165-7.