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Case Report

A rare case of a giant ovarian dermoid cyst in a 65-year-old woman: a case report

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ABSTRACT

Ovarian dermoid cysts, or mature cystic teratomas, are benign germ cell tumors containing tissues derived from ectoderm, mesoderm, and endoderm. While common in younger women, they are rare in postmenopausal individuals, with a small percentage exhibiting malignant potential. We present a case of a 65-year-old postmenopausal woman with a six-month history of an abdominal mass and intermittent pain. Physical examination revealed a large abdominopelvic mass, and imaging studies identified a 16.5×13.9×16.4 cm heterogenous solid mass arising from the left ovary, diagnosed as a dermoid cyst. Surgical intervention confirmed a 25×20×15 cm cyst containing characteristic contents, necessitating total abdominal hysterectomy with bilateral salpingo-oophorectomy. Similar cases in postmenopausal women underscore the diagnostic challenge and need for prompt evaluation and management. Imaging modalities such as ultrasound and CT scan play crucial roles in diagnosis, revealing typical features like fat components and dermoid mesh. Surgical excision remains the mainstay treatment, balancing risks of spillage and recurrence. This case highlights the importance of considering dermoid cysts in the differential diagnosis of abdominal masses in postmenopausal women. Early recognition and appropriate management are essential to prevent complications associated with these rare but potentially substantial ovarian tumors.

Keywords: Dermoid cyst, Postmenopausal, Germ cell tumors

INTRODUCTION

Ovarian dermoid cysts, also known as mature cystic teratomas, are germ cell tumors of the ovary. They are benign, consisting of derivatives of any of the three germ layers-ectoderm, mesoderm, or endoderm.

They account for 10-25% of all ovarian masses and are more common in younger age groups.[1] They are rare in postmenopausal age groups and necessitate ruling out malignancy as about 3-4% are malignant.[2]

CASE REPORT

A 65year old postmenopausal woman presented with complains of mass per abdomen since 6 months with on and off abdominal pain of 2 months duration. She had no other complaints. She was grand multiparous, tubectomised, attained menopause 20 years back.

She was vitally stable with no pallor or pedal edema. On abdominal examination, abdomen was distended, mass arising from pelvis corresponding to 28-week gravid uterus with cystic consistency was noted. On per vaginal examination a hard mass was felt through posterior fornix the extent of which could not be made out due to huge abdominopelvic mass.

Her haemoglobin was 12 gm%, Ca 125 was 43.70 U/ml. Her RFT was normal.

Ultrasound revealed a large heterogenous abdominopelvic solid mass of 16.5×13.9×16.4 cm was noted abutting and causing mass effect on uterus and bladder inferiorly,

extending upto umbilicus with no significant vascularity. Both ovaries were not visualized. Degenerated uterine leiomyoma was suspected. CT scan later identified the mass to be arising from the left ovary with fat components, indicative of a left ovarian dermoid cyst.

Laparotomy was done and left ovarian cyst of 25×20×15cm noted containing yellow pultaceous material along with hair and bone component of 5×6 cm fixed in pouch of Douglas pushing the atrophic uterus posteroinferiorly. Ovarian cyst released from surrounding adhesions and total abdominal hysterectomy with done with bilateral salphingo-oophrectomy. The diagnosis of dermoid cyst was confirmed on histopathology.

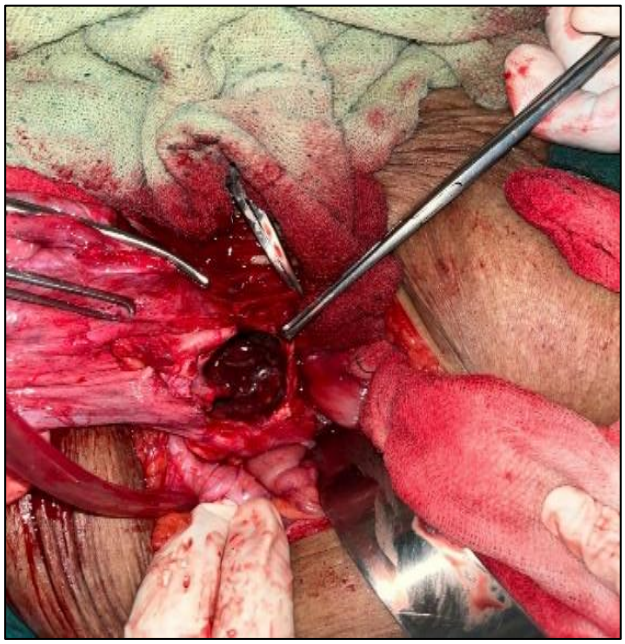

Figure 1: Intraoperative image showing cyst wall and bony component of dermoid cyst.

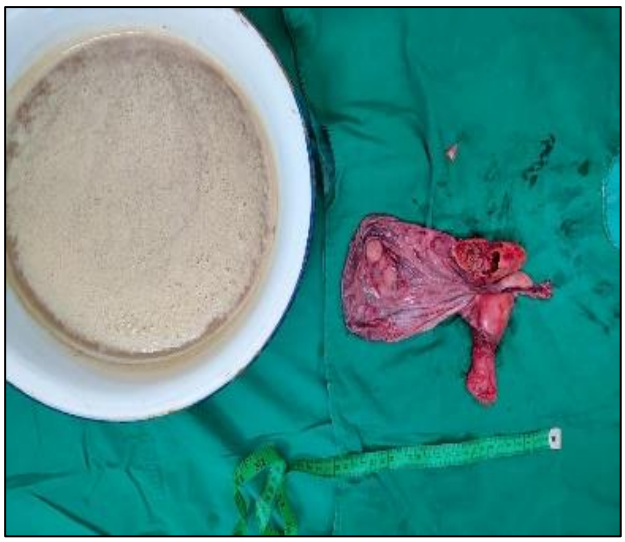

Figure 2: Post-operative image showing cyst content and cyst wall with utero-cervix.

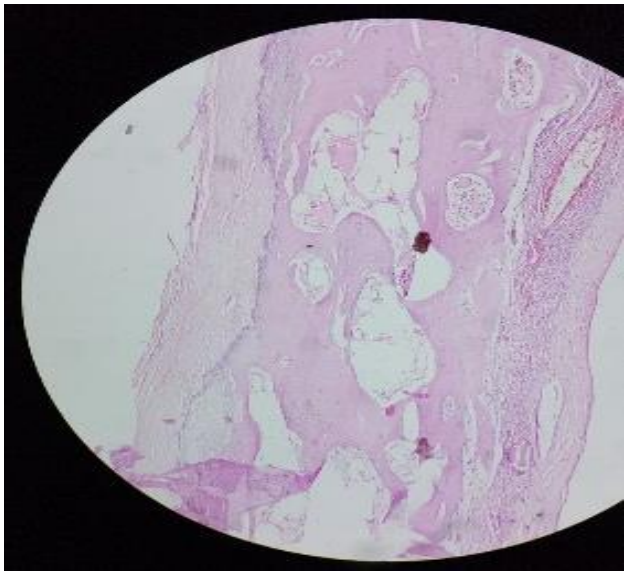

Figure 3: Histopathological image of cyst wall.

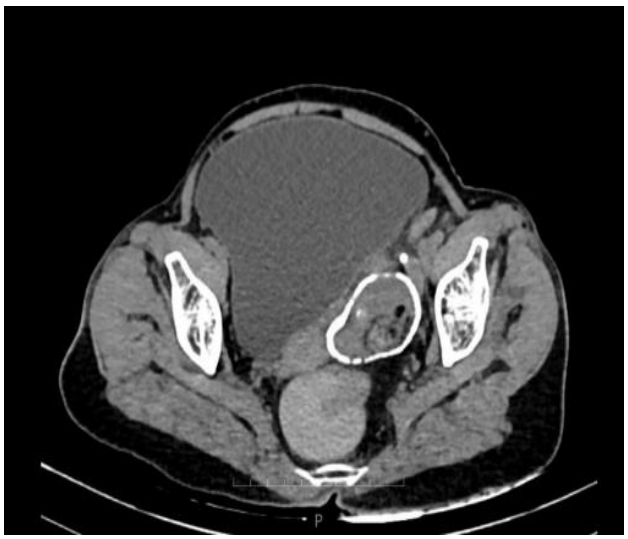

Figure 4: CT scan image showing abdominopelvic mass and bony structures within it.

DISCUSSION

Mature cystic teratoma of ovary is the most common germ cell tumor accounting for almost 90-95% of the cases.

They predominantly occur in reproductive-age women, with peak incidence in the third and fourth decades of life.[6] They are rare in post-menopausal women making it a diagnostic challenge. Cases involving giant mature cystic teratomas in postmenopausal women have been reported by Abdul et al, Kakani et al and Ghose et al all presenting with nonspecific symptoms and evaluated and surgical intervention was done.[3-5]

Mature cystic teratoma of ovary are usually asymptomatic, symptoms when present, may include abdominal pain,

discomfort, or a palpable abdominal mass. They are usually an incidental finding picked up during ultrasound.

On plain radiograph the calcified, tooth or bony structured may be visible. Ultrasound remains the primary imaging modality for initial evaluation. On ultrasound it appears as a cystic mass with mural components with no internal vascularity. Rokitansky nodule may be present. Dermoid mesh (Dot-dash pattern-multiple thin echogenic bands caused by hair in cyst cavity), Comet tail appearance and Intra-cystic floating ball sign though uncommon are characteristic. CT scan helps in demonstrating fat and fat-fluid levels along while also aiding the ultrasound features.

CA 125, CA 19.9 and CEA levels may be elevated. Complications associated with ovarian dermoid are torsion, infection, virilization and very rarely malignant transformation. Presence of internal vascularity may indicate malignant transformation. They are usually treated by surgical removal. Laparoscopy is preferred due to lesser blood loss, quicker recovery and cosmesis, however it entails with it greater risk of spillage and recurrence. The management is tailored to the patient according to their age, presentation and size of the cyst.

CONCLUSION

Dermoid cysts of the ovary, though uncommon in postmenopausal women, should be considered in differential diagnoses. Ultrasonography is a widely accepted aid for detection of mature cystic teratoma of ovary, yet it may not always be conclusive. Neglected mature cystic teratoma of ovary can grow to become of gigantic size.

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