



A POSTMENOPAUSAL WOMAN WITH OVARIAN FIBROMA PRESENTING WITH ADNEXAL TORSION

Radio-Diagnosis

Dr. Ashwini M	Junior Resident, Department Of Radiodiagnosis, Srinivas Institute Of Medical Science And Research Institute, Mukka
Dr. Pooja K. Mehtry	Assistant Professor, Department Of Radiodiagnosis, Srinivas Institute Of Medical Science And Research Institute, Mukka.
Dr. Serene Balaji	Assistant Professor, Department Of Radiodiagnosis, Srinivas Institute Of Medical Science And Research Institute, Mukka.

ABSTRACT

Background: Ovarian fibromas, benign tumors arising from ovarian stroma, are more commonly diagnosed in premenopausal women, but their occurrence in postmenopausal women can present clinical challenges. This case report details an 85-year-old postmenopausal woman diagnosed with adnexal torsion linked to an ovarian fibroma. Adnexal torsion, though rare in elderly women, is a medical emergency requiring prompt intervention to prevent complications. This case highlights the importance of early diagnosis and surgical management of adnexal torsion in postmenopausal patients, emphasizing the potential severity of such presentations in this age group despite their infrequency.

KEYWORDS

Ovarian fibroma, fibroma-thecoma, ovarian torsion.

INTRODUCTION:

Ovarian thecomas, fibromas and fibrothecomas are tumours belonging to the fibroma-thecoma group of stromal tumours. Being the most common solid ovarian neoplasms in asymptomatic women of all ages, they are often difficult to distinguish on radiological imaging and even pathological examination. They are usually solitary and well-circumscribed. Fibromas have whorls of spindle cells in collagenous stroma. Fibro thecomas differ in having sheets and nests of plump-like spindle cells with lipid-rich cytoplasm. Both these tumours can be associated with ascites and pleural effusion, known as Meigs syndrome.

On imaging with ultrasound usually reveals a hypoechoic, solid mass. Because they are frequently distinct, fibromas might be confused with other kinds of ovarian cancers.

On MRI, fibromas and fibrothecomas appear iso to hypointense to the myometrium on both T1 and T2, due to abundant collagen, and can also have a T2 hypointense capsule. All fibromas and fibrothecomas showed homogeneous low signal intensity on T1-weighted images. Degenerative changes can happen in the form of cystic changes if the tumour is larger than 6 cm, which can be central or peripheral and show no enhancement. Superficial cortical fibrosis is seen as a continuous or discontinuous band of T2 hypointensity around ovaries. On contrast imaging, fibromas show delayed enhancement owing to the predominant fibrous component. MRI provides a more accurate description of the tumour and aids in distinguishing fibromas from malignant or cystic lesions.

It is also important to differentiate them from broad ligament fibroids because management differs. Sub-centimetric cysts can be seen at the periphery, representing cortical inclusion cysts or ovarian follicles. This is due to the normal ovarian stroma stretched out around the lesion, which can be a differentiating feature from fibroid. Studies have shown fibromas to enhance less than uterine myometrium but fibroids do.

The ovarian stroma gives rise to benign tumours called ovarian fibromas, which are distinguished by their fibrous tissue makeup. Although premenopausal women are more likely to have them diagnosed, their development in postmenopausal women can give rise to particular clinical issues.

Adnexal torsion is an acute gynaecological emergency, that commonly occurs in children due to a hypermobile ovary. In elderly women, adnexal torsion can be a medical emergency, and timely intervention is essential despite its less frequent occurrence in this population.

Collagen and fibroblasts make up the majority of ovarian fibromas. They are often well-circumscribed and might be solitary or many. Although the precise aetiology of ovarian fibromas is yet unknown,

hormonal factors, particularly those involving oestrogen, may play a role, albeit less so after menopause. Fibromas are often found accidentally during imaging or surgery for unrelated illnesses, leaving many patients asymptomatic. Abdominal distension, pelvic or abdominal pain, and pressure feelings affecting the bladder or colon are among the symptoms.

Although increased levels of CA-125 can arise in a variety of situations, including benign processes, serum levels can be measured. It's critical to distinguish ovarian fibromas from other illnesses including ovarian cancer and benign tumours like cystadenomas. Because of the increased risk of cancer, any new or growing ovarian tumour in postmenopausal women needs to be carefully evaluated. Asymptomatic fibromas may be monitored with regular imaging. Surgical intervention is indicated if there are concerning features or significant symptoms.

Case Report:

75-year-old post-menopausal lady presented to the radiology department with pain in left iliac fossa for 4 days for an Ultrasound abdomen which revealed a left adnexal solid mass lesion of uncertain origin with mild ascites. She underwent CECT abdomen and pelvis, MRI pelvis for further evaluation.

The contrast enhanced study revealed a well-defined and lobulated soft tissue attenuation mass in the pouch of Douglas with mild homogenous enhancement of solid component. The lesion showed few eccentric cystic areas which were traversed by few thin arteries originating from the left adnexa likely reflecting the left adnexal origin of mass. On MRI T1 isointense and T2 hypointense solid lesion was visualized. On all the modalities, the left ovary was not visualized. Left adnexa was bulky with indistinct contour showing swirling of left adnexal vessels on ultrasonography correlation which suggested a torsed-detorsed process of left adnexa. Diagnosis of benign ovarian neoplasm was made with the MRI features suggestive of thecoma – fibroma group of ovarian tumors.

Patient was managed surgically; a left adnexal torsion was confirmed. Histopathology of the tumor lesion revealed a left ovarian fibroma.



Fig 1a And 1b: Contrast enhanced axial (1b) and sagittal (1b) Well defined and lobulated soft tissue density mass in the pouch of Douglas between the uterus and rectum shows mild homogenous enhancement in arterial phase. No internal areas of necrosis or hemorrhage or calcification are seen.

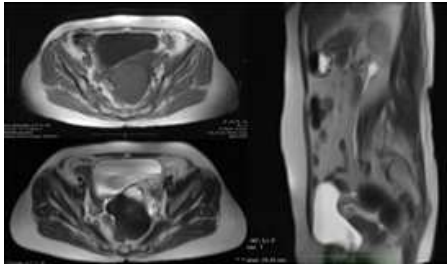


Fig 2a, 2b and 2c (counter clock-wise): Non-contrast T1 axial (2a), T2 axial (2b) and T2 coronal (2c) images of pelvis show T1 isointense and T2 hypointense homogeneous solid lesion in the pouch of Douglas. The lesion showed no diffusion restriction on DWI images (not shown here).

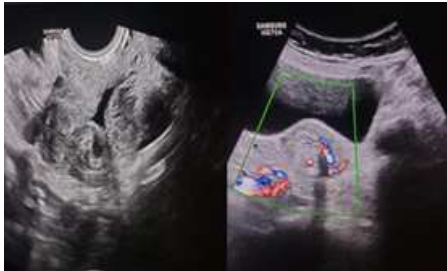


Fig 3a and 3b: Non-contrast ultrasonographic longitudinal (3a) and transverse doppler (3b) pelvis images show bulky left adnexa with indistinct contour showing swirling of left adnexal vessels.

CONCLUSION

Ovarian fibromas are benign, and surgical removal generally results in a favourable outcome. Follow-up may be recommended, particularly if there were initial concerns about malignancy. Due to the potential for misdiagnosis, any ovarian mass found in postmenopausal women should be thoroughly evaluated to rule out cancer.

In adults, torsion is commonly associated with an ovarian lesion. Ovarian fibromas rarely cause adnexal torsion and can be the cause acute pain in otherwise asymptomatic women. Ability to make a diagnosis of benign ovarian neoplasms can greatly affect patient management, reducing patient anxiety, and avoiding morbidity due to unnecessary invasive procedures.

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