International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor 2025: 7.089

A Case Report of Primary Ovarian Fibrothecoma in a Perimenopausal Female

Aayushi Negi[1], Oby Nagar[2], Suwaram Saini[3]

[1]Department of Obstetrics & Gynaecology, SMS Medical College & Attached Hospitals, Jaipur, Rajasthan, India
Corresponding Author Email: *negiaaayushi1996[at]gmail.com*

[2]Department of Obstetrics & Gynaecology, SMS Medical College & Attached Hospitals, Jaipur, Rajasthan, India
Email: *oby.nagar[at]yahoo.co.in*

[3]Department of Obstetrics & Gynaecology, SMS Medical College & Attached Hospitals, Jaipur, Rajasthan, India
Email: *dr.sr.saini[at]gmail.com*

Abstract: ***Solid adnexal masses in perimenopausal women present a genuine diagnostic dilemma, especially when serum tumour markers offer no directional clue. Ovarian fibrothecoma- a gonadal stromal neoplasm blends the architectural features of a fibroma with those of a thecoma- is one of the less common culprits in this scenario. We describe a 45-year-old woman who attended our outpatient clinic carrying a two-year burden of worsening pelvic pain. Imaging identified a solid right adnexal mass, and a full biochemical workup, including a complete tumour marker screen, suggested normal values. During laparotomy, the surgical field revealed a blackish-blue encapsulated mass of approximately 50 × 40 mm which was originating from a thrice-twisted right adnexa, consistent with acute ovarian torsion superimposed on the underlying neoplasm. Right salpingo-oophorectomy was performed, and histopathology confirmed fibrothecoma. This report underlines the importance of keeping fibrothecoma in the differential diagnosis of solid ovarian masses and reaffirms the role of frozen-section analysis and immunohistochemistry in arriving at a definitive tissue diagnosis.***

Keywords: Ovarian fibrothecoma, Sex cord-stromal tumour, Ovarian torsion, Perimenopausal female, Laparotomy, Immunohistochemistry

1. Introduction

Solid ovarian tumours in the perimenopausal age group rarely generate the clinical alarm of their malignant counterparts, yet they demand careful and systematic evaluation. Ovarian fibrothecoma occupies a distinct niche within gynaecological pathology: it is a benign gonadal stromal neoplasm that simultaneously displays the whorled collagenous stroma of a fibroma and the lipid-laden spindle cells characteristic of a thecoma [1]. Within the spectrum of sex cord-stromal tumours, fibromas and thecomas together account for roughly 3–4% of all ovarian neoplasms, with fibrothecoma representing an intermediate histological entity [1].

What renders these lesions clinically deceptive is their propensity to remain silent even as they attain considerable size. Many patients present with months- sometimes years- of non-specific symptoms before a palpable mass or incidental imaging prompts further investigation [2]. When symptoms do crystallise, the driver is more often a mechanical complication such as torsion than the tumour itself. Ovarian torsion in this context is both painful and destructive: the resultant ischaemia can render ovarian tissue non-viable within hours, making early surgical recognition and intervention essential [2]. The present report describes such a case, managed successfully at our institution.

2. Case Report

A 45-year-old perimenopausal woman presented to our Gynaecology outpatient department with a two-year history of lower abdominal discomfort that had been steadily worsening over recent months. She described the pain as dull and persistent, without any identifiable aggravating or relieving factors, and without radiation. Her menstrual profile provided no diagnostic clue- cycles ran every 28 to 30 days, lasted three to four days, and produced a normal volume of menstrual flow. Dysmenorrhoea, post-coital bleeding, and urinary symptoms were all absent. Obstetric history was unremarkable: she was para-2 with no operative deliveries and had never undergone pelvic or abdominal surgery.

Physical examination, however, told a different story. The patient was haemodynamically stable and appeared in good general health. Abdominal palpation revealed a firm, non-tender, and relatively immobile mass arising from the pelvis and extending approximately halfway to the umbilicus, without crossing the midline. Per-vaginal examination brought the right adnexa into focus, confirming the adnexal origin of the mass and its clear demarcation from the body of the uterus.

3. Investigations

A thorough pre-operative workup was initiated. Full blood count, renal and hepatic function tests, and coagulation studies were all within normal limits. Tumour marker assessment was especially informative: CA-125, CA 19-9, β-human chorionic gonadotropin (β-hCG), serum lactate dehydrogenase (LDH), and carcinoembryonic antigen (CEA) were each within their respective reference ranges, making a primary ovarian malignancy considerably less likely [3].

Transabdominal ultrasonography (USG) showed a solid-cystic mass in the right adnexa measuring 5.5 × 3.3 cm, accompanied by a modest volume of free fluid in the Pouch of Douglas. Colour Doppler demonstrated internal vascularity (Figure 1). Subsequent computed tomography (CT) of the abdomen and pelvis provided more granular anatomical detail: a homogeneous, predominantly solid lesion measuring 57 × 52 mm was identified in the right adnexa, maintaining close proximity to the anterior rectal wall and directed towards the Pouch of Douglas. The synthesis of solid adnexal morphology, internal vascularity, entirely normal tumour markers, and the patient's perimenopausal status pointed unambiguously towards surgical exploration.

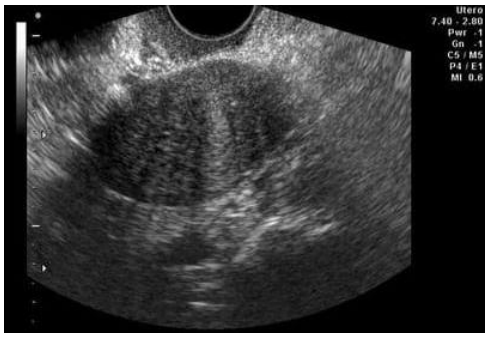

Figure 1: Transabdominal USG demonstrating right adnexal solid-cystic mass. Doppler interrogation shows internal vascularity within the lesion.

4. Intraoperative Findings and Management

Exploratory laparotomy was undertaken under general anaesthesia with the patient in the supine position. On entering the peritoneal cavity, the right adnexa immediately drew surgical attention. A well-encapsulated, blackish-blue mass of approximately 50 × 40 mm occupied the right pelvis; its surface was irregular and its discolouration reflected ischaemic venous engorgement rather than haemorrhagic rupture (Figure 2). Careful dissection of the pedicle exposed three complete axial twists- classical tripling torsion- that had choked the venous drainage and driven the ovarian tissue to the brink of infarction (Figure 3).

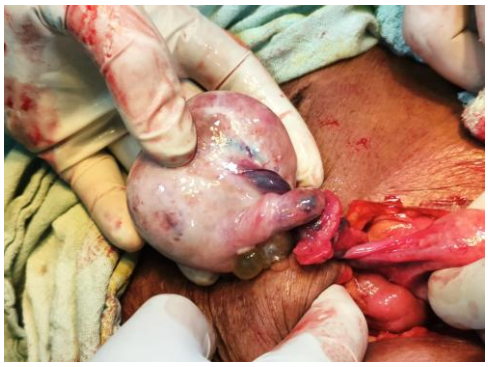

Figure 2: Gross specimen: posterior surface of the excised ovarian mass showing the characteristic blackish-blue discolouration from ischaemic congestion.

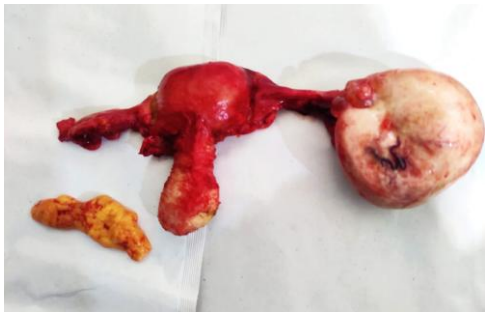

Figure 3: Intraoperative view showing the thrice-twisted pedicle of the right adnexal mass, confirming complete ovarian torsion

Given the advanced ischaemia and the patient's perimenopausal status, right salpingo-oophorectomy was performed. The excised specimen was sent for intraoperative frozen section and subsequently for paraffin-embedded histopathological examination and additional targeted immunohistochemistry (IHC) panel. The left ovary, uterus, and all visible peritoneal surfaces were unremarkable. The post-operative course was uncomplicated, and the patient was discharged in a stable and comfortable condition.

5. Discussion

This case offers an instructive window into a diagnostic territory that many gynaecologists traverse only occasionally: a symptomatic solid adnexal mass in a middle-aged woman that proves entirely benign at histology. Fibrothecoma sits within the sex cord-stromal family and merges the densely collagenous matrix of a fibroma with the steroidogenic spindle cells of a thecoma [1]. Its frequent co-occurrence with uterine leiomyoma points to a shared endocrine stimulus, possibly related to aberrant sex-steroid signalling in susceptible stromal populations [2]. Hirsutism and infertility, though cited in the older literature, are uncommon accompaniments [2].

A normal CA-125 in our patient, while reassuring, should not be read as exonerating evidence against malignancy in isolation; rather, it appropriately shifts the differential towards gonadal stromal and other benign entities, none of which generate reliable serum-detectable markers [3]. The real clinical crisis in this case was torsion. Three complete twists had compromised venous outflow sufficiently to cause near-total ischaemic infarction. The published literature supports detorsion with ovarian conservation where tissue viability permits; in perimenopausal or postmenopausal women with irreversible ischaemia, salpingo-oophorectomy is the preferred definitive procedure [2].

Arriving at the precise histological diagnosis of fibrothecoma under the microscope is not always straightforward. The morphological overlap with thecoma, sclerosing stromal tumour, and- critically- spindle-cell malignancies such as leiomyosarcoma makes a robust IHC panel non-negotiable. Inhibin and calretinin positivity supports sex cord-stromal lineage; desmin and smooth muscle actin (SMA) help characterise any smooth muscle component; and Masson's trichrome staining delineates the proportions of collagenous versus cellular tissue, which is central to subclassifying these tumours [1, 3].

6. Conclusion

Ovarian fibrothecoma is a lesion that combines rarity with genuine clinical consequence. Its capacity to masquerade as a potentially malignant adnexal mass- and to do so silently until torsion intervenes- makes it a diagnosis worth carrying in the mental differential of every practising gynaecologist. Normal serum tumour markers do not exclude it, but they help direct the pre-operative workup towards benign pathology. Surgical excision with intraoperative frozen section constitutes the cornerstone of management, and a well-chosen IHC panel- anchored by inhibin, desmin, SMA, and Masson's trichrome staining- remains indispensable for definitive tissue characterisation and for ruling out morphologically similar malignant entities [1, 2, 3]. We hope this case contributes, even in a small measure, to the growing literature reminding clinicians that not every solid ovarian mass is sinister.

References

[1] S. Palaniappan, P. Selvaraj, and R. Murugesan, "Ovarian Fibroma: A Clinico-pathological Study of 23 Cases with Review of Literature," J. Obstet. Gynecol. India, vol. 66, no. 6, pp. 460–465, Dec. 2016.
[2] J. S. Berek and E. Novak, Berek & Novak's Gynecology, 16th ed. Philadelphia, PA: Wolters Kluwer, 2019.
[3] A. Chechia, L. Attia, T. B. Temime, N. Makhlouf, and S. Koubaa, "A Rare Presentation of Ovarian Fibrothecoma in a Middle-Age Female: Case Report," Int. J. Women's Health, vol. 11, pp. 149–152, Feb. 2019.

Author Profile

Dr. Aayushi Negi is a senior resident in the Department of Obstetrics & Gynaecology, SMS Medical College & Attached Hospitals, Jaipur, Rajasthan, India. Her clinical and research interests encompass benign gynaecological tumours, labour induction, and operative obstetrics.

Dr. Oby Nagar is a senior professor and unit head in the Department of Obstetrics & Gynaecology, SMS Medical College & Attached Hospitals, Jaipur. She brings extensive expertise in gynaecological oncology, high-risk obstetrics, and minimally invasive surgery.

Dr. Suwaram Saini is a professor in the Department of Obstetrics & Gynaecology, SMS Medical College & Attached Hospitals, Jaipur, with a particular interest in general gynaecology and operative procedures.