CASE REPORT

Meig's Syndrome: A Rare Case of Ovarian Tumour

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Abstract:

Ovarian fibroma is a rare benign ovarian tumour about 4% of all ovarian tumour, which grows from connective tissue of the ovarian cortex. Among the sex cord stromal tumour, fibroma is the most commonly encountered subtype. Mean age of occurrence is 45 years to 55 years.

Meig's syndrome is characterized by a triad of ovarian fibroma, ascites and plural effusion which can manage surgically. Pleural effusion and ascites are usually transudative.

An unusual case of fibroma of ovary presenting at 32 years of age with ascites and right sided plural effusion. Patient had C/O heaviness in lower abdomen with swelling. On examination there was decreased air entry in right side of the chest, a mass felt in hypogartic region-firm to solid in consistency mobile about 10x12cm in size, chest X-ray showing right sided pleural effusion UGS-abdomen-shows mild ascites with large complex mass on left side. CT scan-also confirmed a large solid mass arising from left adenexal regain close to fundus of uterus with mild ascites. Tumour markers were normal. She underwent laparotomy. Bispsy report showed left sided ovarian fibroma.

Introduction:

Fibroma, thecoma and fibro-thecoma are rare benign tumours, which grows from the connective tissue of the ovarian cortex. The mean age of occurrence is 45 to 55years[1,2]. Fewer than 10% of the cases are encountered under the age of 30 years. They are classified under sex cord-stromal tumour which also include tumour composed of granulosa cells, theca cells, sertoli cells, leyding cells & fibroblast of stromal origin[3].

Ovarian fibroma is the most common benign solid tumour of the ovary, composed of spindle shaped fibroblastic cells and abounded collagen[4]. It account for 4% of all ovarian tumour[5].

Meig's syndrome is defined as the triad of benign ovarian tumour especially ovarian fibroma with ascites and pleural effusion that resolves after tumour resection[6]. It occurs as a result of increased capillary permeability thought to be result of vascular endothelial growth factor (VEGF) production. Pleural effusion are usually right sided because the transdiaphragmatic lymphatic channels are larges in diameter on right[7] Meig's Syndrome is also seen in cases like large cystic, leomyomas or other benign ovarian tumours, thecoma, cystadenoma or granulose cell tumour[8], Meig's syndrome occurs in just 1% of these tumours indicating rarity of the clinical condition[9].

Affected women are asymptomatic or complain only of a palpable and progressive swelling mass in the inferior abdomen[10]. They can be unilateral in 90% of cases, and may vary in size from 3 to 15cm[11].

In this case age presentation is less than reported in literature and hence, diagnosis was confirmed by histopathology report.

Case report:

Miss Shahanara, unmarried nulliparous lady presented to us with gradual swelling of lower abdomen for 2-3 months with feeling of heaviness in lower abdomen with slight left sided pain for last 1 month. She has no h/o of menstrual abnormality.

On examination, general condition was unremarkable with no pallor, edema, hymphadenopathy or any sign of dehydration. Vitals were stable. On respiratory examination-decreased air entry was observed on right sided lung. Cardiovascular examination was normal.

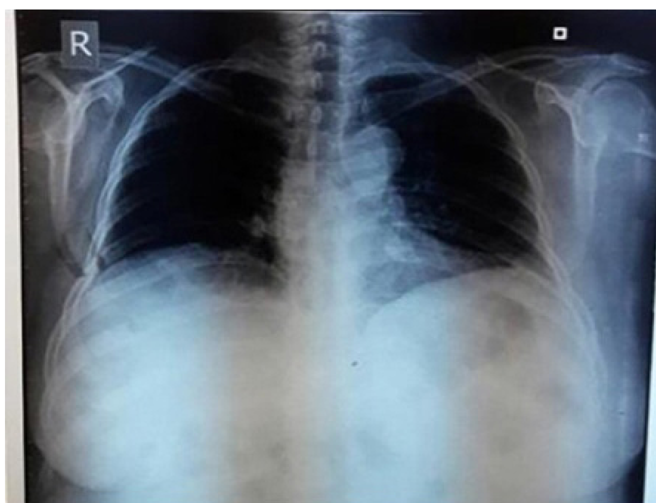


Fig 1 : Chest X-ray showing right sided pleural effusion.

Abdominal examination revealed a mass about 10x12 weeks size of pregnant uterus was palpable in hypogastric area arising from pelvis, firm to hard in consistency, smooth surface with well defined margin, mobile.

USG-showed-large mixed echogenic solid mass about 10x7.2cm is size is left pelvic region seems attached to fundus of uterus-probably subserous fibroid with ascites, or solid T/O mass

Subsequently CT-Abdomen suggested- Fairly large well defined sold mass is pelvic cavity in left side-probably

1. Pedunculated fibroid-

2. Left Adenexal mass of ovarian origin with mild ascites

Tumor markers were CA-125-18.8 U.ml, Ca-199-14.5 U/ml, α -Feto protein-0.5ng/ml LDH-200Iu/L (All markers within normal range). Exploratory laparotomy was planned.

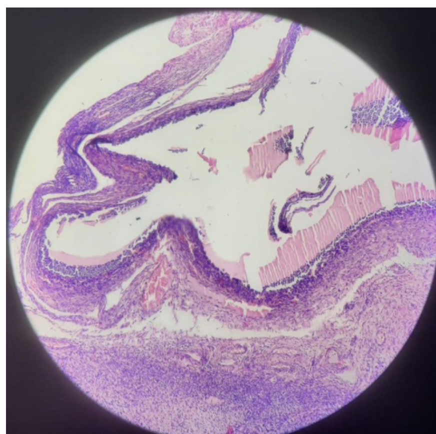
Findings on laparotomy:

Straw color ascetic fluid about 20ml aspirated and sent for cytology. There was large left adnxeal Pedunculated mass arising from left ovary about 10x12cm un size, firm to hard in consistency, smooth outer surface. Then left sided Salphingo-ophorectomy was done. Uterus and Right sided tube and ovary is normal.

No peritoneal deposits and no pelvic lympnodes were palpable. Omentum, bowel, liver and peritoneal surface were normal. Mass was sent for histological examination.

Cytology of peritoneal fluid showed normal study.

→ Histopathology confirmed the Dx- Ovarian fibroma and absence of malignant cells.



Patient stood the procedure well and discharged on the 5th POD.

Discussion:

Ovarian fibromas are the most common hormonally inactive sex cord stromal tumor variants that usually occur in perimenopausal and menopausal women.[12] They represent only 4% of all ovarian neoplasms and are the least common major subtype of ovarian cancer. Meigs's Syndrome occurs in just 1% of these cases. Although Meigs's Syndrome is extremely rare, it is known to produce pleural effusion and ascites. Because several conditions are linked to the development of these common indications, the correct diagnosis and treatment are frequently missed.[13]

Fibromas are usually solid, spherical, slightly lobulated, encapsulated, gray-white masses covered by a glistening, intact ovarian serosa[14]. Fibromas should be both grossly and microscopically differentiated from thecoma and Brenner and Krukenberg tumos. Fibromas are solid, firm, and uniformly white, while thecomas have a yellow color in the cutting surface, an important feature in the differential diagnosis with fibroma. Brenner and Krukenberg tumors were excluded by negative immunoreactivity for keratin and epithelial membrane antiger[15].

The cause of Meigs's condition is still unknown. Ascites are a common symptom of ovarian tumors, and numerous causes have been proposed, including tumor torsion and restriction of venous drainage. According to laboratory investigations, the fluid collected in most but not all cases is transudate. The chest and abdomen fluids are identical in all patients[16]. Peritoneal cytology, tumor markers, and other signs of malignant pathology may be confusing. Hence, laparotomy is essential for the correct identification of ovarian tumors[17]. Due to the rarity of this condition, this is a diagnosis of exclusion but should be considered as soon as ovarian malignancy is excluded. The presentation in our case was similar where a long-standing ovarian mass presented with ascitis and pleural effusion.

Conclusion:

Ovarian fibromas are benign tumors of the ovary, uncommon are sex cord stromal tumor commonly seen in post menopausal women. Fibroma must be distinguished from several nonneoplastic ovarian processes, specifically massive edema, fibromatosis, and stromal hyperplasia. Imaging is helpful to diagnose, but histopathology can only confirm the diagnosis. Surgical removal of these solid ovarian tumors is recommended because of the low probability of malignancy and recurrence[18]. Treatment usually consists of surgical resection either by laparotomy or laparoscope approach.

Patient consent:

Written and informed consent was obtained from the patient for the purpose of publication. the patient consented to their data being published.

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