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RESEARCH ARTICLE

OVARIAN TERATOMAS DURING PREGNANCY A CASE REPORT AND REVIEW OF LITERATURE

Dr. Azhar Schett[1] and Dr. Faiqah Azim[2]

1. MBCHB-HIGH DIPLOMA OG-GBOG, Consultant, German Board (OBS& Gyn) and Breast Diseases, Chairman Obs/Gyne Sulaiman Al Habib Hospital, Dubai UAE.
2. MBBCH-Dubai Medical College, Arab Board (OBS &Gyn) UAE, Specialist Latifa Women and Children Hospital.

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Abstract

The mature teratoma or dermoid cyst of the ovary is a benign tumor with a good prognosis which constitutes less than 1% of ovarian tumors. Its association with pregnancy is rare however. [1] Mature cystic teratomas are rarely the cause of adnexal torsion during pregnancy and can be difficult to diagnose. [2] Immature teratoma is one of the rare malignant germ cell tumour presented in pregnancy. [3] Here we present a case of 28years old lady pregnant with her second child who was found to have right sided ovarian cyst during second trimester anatomy scan. Follow up ultrasounds however demonstrated right sided complex ovarian cyst measuring 13.9x17.2cm. She had undergone Caesarean section at 37weeks of gestation and hight side salpigoophorectomy . Histopathology showed mature and immature teratoma.

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Introduction:-

The incidence of malignant ovarian tumours in pregnancy is relatively low with the incidence of 0.2– 3.8 cases in every 100,000 pregnancies.Immature teratoma in pregnancy accounts for less than 1% of all ovarian teratomas. [3] Teratomas are numerous histologic forms of tumours that contain mature or immature germ cell (pluripotent) tissues. Usually, mature cystic teratomas only affect fertile women.They are the most prevalent kind of ovarian germ cell neoplasm and are virtually always identified in the ovary. [7]

Dermoid cysts, also called mature cystic teratomas are most commonly found in young women of reproductive age and are a cause of an estimated 20%-40% of ovarian masses in pregnant women. It is a benign cystic mass that contains elements of all three germ cell layers, endoderm tissue, mesodermal tissues, and most prominently ectodermal tissues such as teeth, hair, and sebum .[2] In clinical practice, ultrasound examination can detect it with an accuracy of 97.5%–100%.[5]

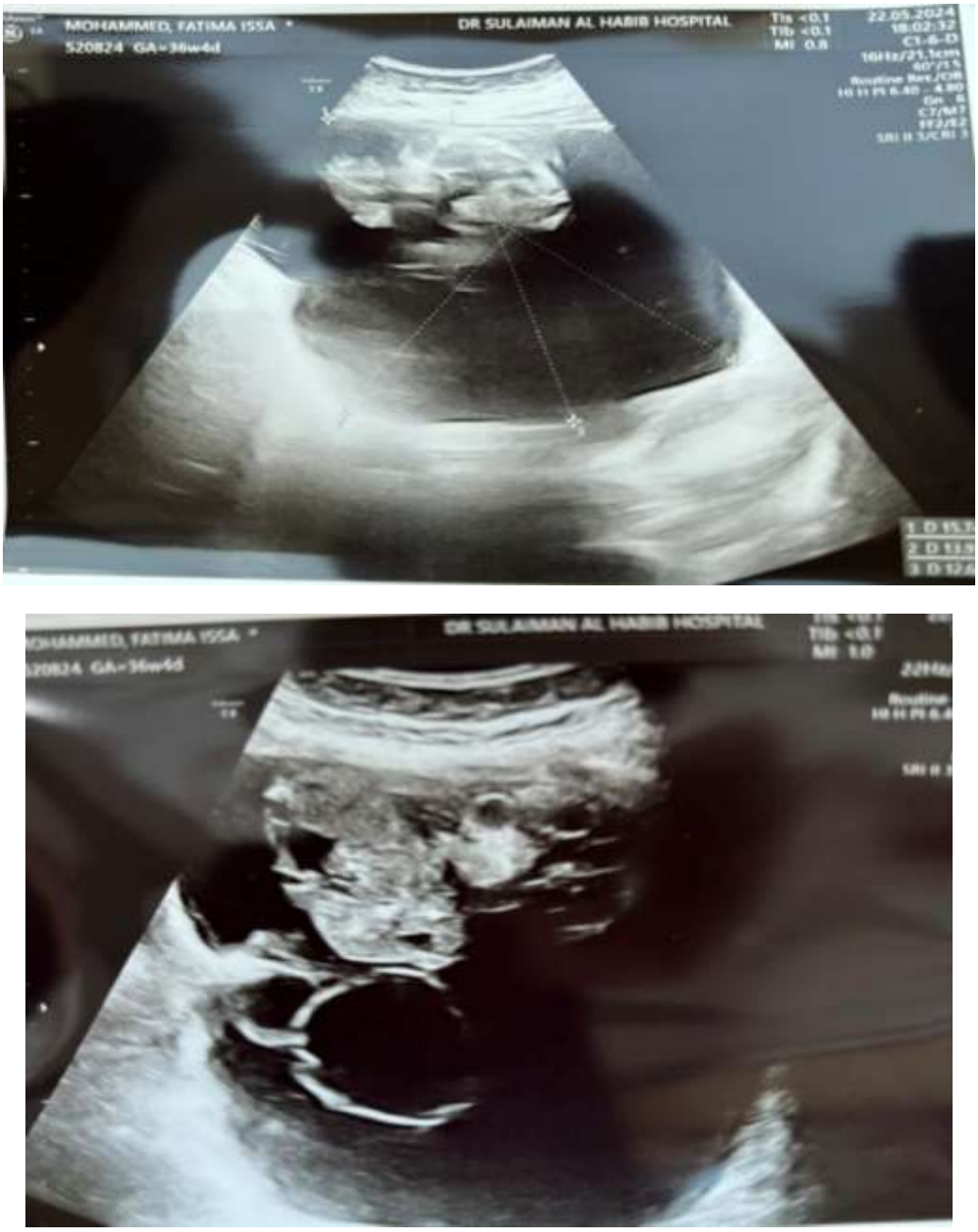
Histology holds the greatest importance in the confirmation of the diagnosis of a mature teratoma. The treatment is exclusively surgical.[6]

Case report

Mrs.F.M a 28years old lady, gravida-2 P1+0 previous caesarean section.

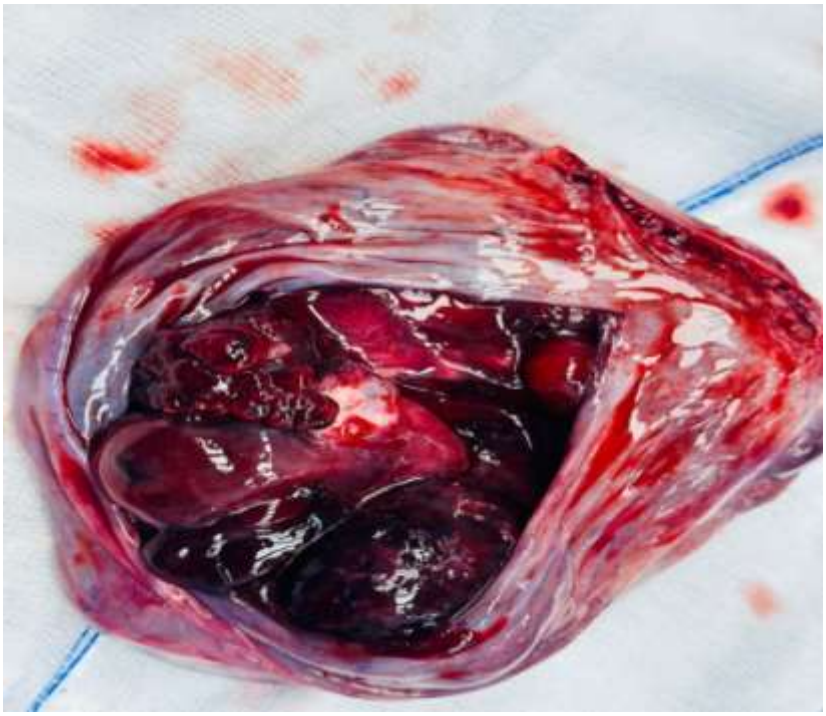
Corresponding Author:-Dr. Azhar Schett
Address:-MBCHB-HIGH DIPLOMA OG-GBOG, Consultant, German Board (OBS& Gyn) and Breast Diseases, Chairman Obs/Gyne Sulaiman Al Habib Hospital, Dubai UAE.

No significant past medical history. During her current pregnancy she was followed up regularly, at 29weeks of gestation detailed anatomy scan was performed which demonstrated a single fetus appropriate for gestational age and right sided simple ovarian cyst was identified. Tumor markers were carried out which were all within normal range . Patient was referred to consultant for follow up and second opinion. During her follow up visit at 36weeks of gestation the cyst was found to be complex with septations , soft tissue components and vascularity measuring about 13.9x17.2cm.



Ultrasound images demonstrating right sided septated cyst, containing solid and cystic component

Patient underwent caesarean section at 37weeks of gestation, during the surgery right oophorectomy was done . Patient is undergoing chemotherapy till date.



Picture surgical specimen showing dermoid cyst

Intra-operative findings

Large mass containing cystic and solid components was removed along with the right ovary.
The specimen was sent for histopathological studies .

Histopathology report

The tumor consisted mainly of mature elements including squamous epithelium, ciliated and mucinous epithelium.In addition several blocks contain immature neuroepithelial elements in the form of primitive tubules and occasional rosette.
The findings are consistent with high grade mature and immature teratoma.

Discussion

The frequency of ovarian tumors discovered during pregnancy is between 0.3% and 5.4%. The most common benign organic ovarian tumors during pregnancy are dermoid cysts and cystadenomas.It had been speculated that hormonal changes due to pregnancy may be responsible for an increase in the size of dermoid cysts.[1]

As a widespread of obstetric ultrasound examination, the incidence of adnexal masses during pregnancy has increased to 0.05–2.4% in recent years. [5]

The majority of ovarian tumours in pregnancy are incidental findings during an obstetric ultrasound.Serum tumor markers in addition to imaging are useful in the diagnosis of immature teratoma in pregnancy. However, pregnancy itself is often associated with elevated serum tumour markers due to the physiological changes it undergoes. A multidisciplinary approach should be taken into consideration for the management of ovarian tumours in pregnancy and the therapeutic decision should be based on the histology, grade and stage of the tumour along with the period of gestation.[3]

Mature cystic teratomas are cystic tumours made of well- differentiated progenitors from at least two of the three germ cell layers (ectoderm, mesoderm, and endoderm), which is a more accurate word than the widely used "dermoid cysts.[7]

Consent

Informed consent was obtained from the patient for publication of the case

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