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Malignant Ovarian Dysgerminoma in Pregnancy: A Case Report

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Abstract:

Normal pregnancy commonly takes an uneventful path. Emergency surgical intervention can be considered as a good chance to evaluate the hidden organs, which should not be missed. Ovarian pathology during pregnancy can be misdiagnosed as labour or gastrointestinal pathology. This is why in patients at reproductive age liaison with a gynaecologist is of great importance to avoid late presentation or misdiagnosis. Here we discuss a case of Ovarian Dysgerminoma in Pregnancy that was misdiagnosed as preterm labour with ascites. The case highlights the importance of considering rare conditions during pregnancy and the importance of multidisciplinary team and experts' advice.

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Introduction:

Normal pregnancy commonly takes an uneventful path and ends with spontaneous labour at term. However, some pregnant ladies develop complications in the form of pre-term labour (PTL), exaggerated symptoms of pregnancy, or other adverse events during pregnancy. Detection, diagnosis, and management of such conditions are of great value.

One of the common complications of pregnancy is pre-term delivery, which is a consequence of an abnormal condition rather than a single medical situation that needs a proper workup to avoid complications and adverse events.

According to the WHO, Preterm birth occurs for a variety of reasons. Most preterm births happen spontaneously, but some are due to medical reasons such as infections or other pregnancy complications (1). This raises the importance of dealing with cases of PTL as a result of underlying pathology rather than a single medical condition. Some conditions allow for unplanned medical surveys in persons with unrecognized medical diseases. These conditions include emergency surgeries, pre-employment medical assessment, and hospital admission for different reasons. This chance could be easily missed if the person in charge makes a shortcut path in dealing with the patient or if he's not aware of what could be behind the presenting story. In a caesarian section, as an example, there are two techniques when dealing with the uterus these are exteriorization or in-place closure, and each has advantages and disadvantages.

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According to many studies, the safety of the uterine exteriorization technique remains disputed. However, a significantly greater number of patients had increased post-operative pain and need for additional analgesia in the exteriorization group. There was no significant difference concerning intra-operative blood loss and incidence of nausea and vomiting; incidence of post-operative endometritis, febrile morbidity, wound infection, time taken for return of bowel function, and length of hospital stay among the two groups. And even the study concluded that uterine exteriorization and in situ repair have similar post-operative caesarean section morbidity outcomes. However, in situ repair of the uterus was associated with lesser post-operative pain, and exteriorization of the uterus was associated with lesser operating time. (2). These findings led some doctors to favor in situ uterine closure as best practice, but in some cases, this choice may lead to missing some pathology within the pelvis, especially if the operation went smoothly.

One paper reported that one major issue in ovarian cancer is distinguishing between common gastrointestinal and urinary conditions (3). And we all know that pregnancy symptoms mimic and aggravate both urinary and GIT symptoms, which makes it more confusing if we need to exclude ovarian malignancy in its early stages.

Barbara Guff and her colleagues found that patients with ovarian cancer commonly report their symptoms for three to twelve months before finally being diagnosed (3). This fact is more confusing if we are dealing with a pregnant lady due to confusion between GIT, surgical, labor, pregnancy symptoms, and those of ovarian conditions.

The primary diagnostic challenge is the malignancy's non-specific symptomatology, often mirroring benign conditions and other gynaecological malignancies, a situation that necessitates the need to have high clinical suspicion. (4). This condition may be solved by laboratory tests and imaging techniques, but this is a little confusing during pregnancy as some barriers render the usage of CT and MRI, and technical factors limit the ultrasound from scanning all pelvic organs when pregnancy reaches advanced gestation.

Case presentation:

23Y lady G4P2+1 2C.S. She presents at 33 weeks gestation (according to USS) with abdominal distention and abdominal pain for the last 14 days, which started gradually. The pain was generalized, increased over days, not radiated or referred to other sites, and had no relieving factors. The patient was not diabetic and had a normal past medical history apart from what she mentioned for the last 14 days. On examination, there was cervical dilatation and the fetal heart rate was normal, but there was polyhydramnios, which was not noticed during her last antenatal visit.

The patient was diagnosed as PTL and planned for Em C.S. at 1:20 A.M. Operation was done under S.A. without complication, and the uterus was closed without exteriorization. The baby was 1.7 kg and referred to SCBU due to prematurity. The patient was sent to the post-operative ward and discharged as a routine.

About 18d post-operatively, the patient came to the hospital with abdominal pain and distention. On examination she was unwell, not pale, a left iliac fossa mass and ascites was noted; the mass was not tender.

The plan of treating team was admission for work-up and investigations. The investigations were all normal except for albumin, and the ultrasound (that was done by a sonographer) reports free adnexa and bowel mass with ascites. Based on these findings, consultation for the department of medicine is required regarding the role of medical causes. The patient later developed a cough associated with shortness of breath, and at that time, the medical advice was paracentesis to relieve distention and

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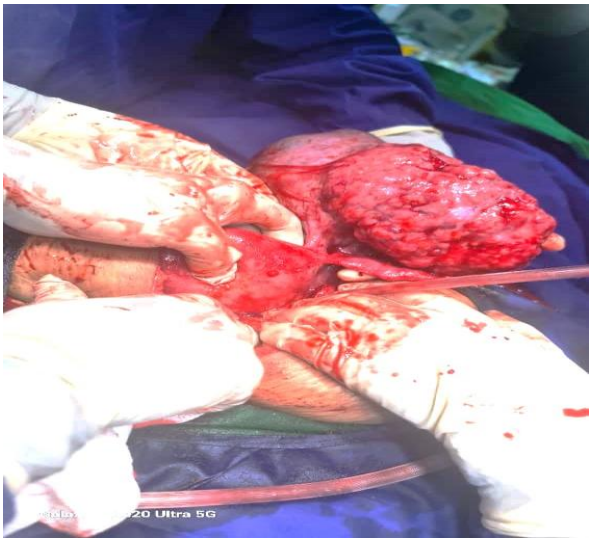
chest X-rays to complete the work-up. Then, 4 days later patient didn't respond well. At that time, they proceeded to do a CT with contrast, and findings were solid and cystic 16 * 9 cm ovarian mass with enhanced Doppler and massive ascites. What is important to mention is that her medical and family history was normal regarding history of malignant diseases.

Then the pt planned for laparotomy, the intraoperative findings were ascites and a suspected malignant left ovarian mass (pictures 1 and 2), so staging laparotomy was done (TAH, BSO, omentectomy, cytology, and appendectomy). The patient was admitted to the ICU post-operatively for further follow-up and care.

She recovered in a good way and was discharged home without immediate complications. The histopathology report then showed Dysgerminoma at the left ovary with the involvement of the left tube. After that, the patient was referred to an oncologist to complete her treatment.



Picture 1: intraoperative showing the uterus, and lift ovary with the mass.

Picture 2: Whit line pointing to the uterus, black line to the right ovary, and blue line to the left ovary.

Discussion

In this case, there are points to be raised:

The first point is the importance of the question of what is behind preterm labour and the scheme of thinking when looking for patient diagnosis.

Second, we should take pregnancy and labour as a chance to make medical evaluation and education rather than considering it as a normal event. The challenge in ovarian malignancy is that late presentation directly affects patient outcomes and survival. We need effective screening tools to achieve early detection, which is not possible to date.

We think that the standard way of history taking in which doctors analyse every single note given by the patient is important to reduce misdiagnosis. according to Barbara and her team, ovarian cancer patients have symptoms of recent onset and occurs more than 50% of the month (3), this note will facilitate diagnostic process and reduces the level of confusion in diagnosis.

Some methods have been proposed to increase the rate of detection in ovarian cancer, such as serial ultrasound or tumour markers, but all are only effective in the detection of ovarian cancer after it becomes a clinical condition, not at the precancer stage. Sometimes, accidental or planned surgery gives a chance for early detection of pathology in

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the early stage, but even here, this depends on many factors, of which the human factor is the most important. An important point when talking about ovarian cancer is that symptoms of ovarian cancer mimic symptoms and signs of early/ late pregnancy, GIT diseases, and even labour, which makes misdiagnosis in ovarian cancer more likely than in other gynaecological malignancies. Kia Hong and his colleagues conclude in their study to the fact that patient cognition is crucial in OC diagnosis delay. Enhancing public awareness and understanding of OC is essential to eliminate fear and improve early diagnosis. (5)

The NICE 2021 recommends considering transvaginal ultrasound measurement of cervical length as a diagnostic test to determine the likelihood of birth within 48 hours. Act on the results as follows:

If cervical length is more than 15 mm, explain to the woman that it is unlikely that she is in preterm labor and think about alternative diagnoses (6). This reflects the fact that many factors and diseases mimic preterm labor, as in our case, and must be ruled out.

Conclusion:

- Any case of preterm labor may be a sign of underlying pathology rather than a single event; this necessitates careful assessment and a high index of suspicion.
- An expert opinion should be available in cases where presentation is un usual or symptoms take a long time to resolve.
- Whenever there is a chance to operate, there is a good chance to evaluate an unseen organ, and this chance should not be missed.
- Ultrasound scan during pregnancy needs special training and careful assessment to avoid missing important pathology.
- In some cases, pelvic mass may be misdiagnosed, and here is the importance of clinical interpretation and other radiological methods.
- We think there is a place for laparoscopy in some cases as a diagnostic tool, as it provides both visualization of pelvic organs and direct biopsy. But there are technical concerns for laparoscopy during pregnancy.

Acknowledgement: We thank the patient for sharing her notes and seeking our consultation in spite we were not her primary physician.

Ethical consideration:

Patient consent was taken for the publication issue.

Conflict of interest:

No conflict of interest

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