

CASE REPORT

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Giant ovarian cyst complicating term pregnancy, a rare case report

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Abstract

Adnexal masses are generally detected in the early stages of pregnancy with the assistance of ultrasonographic evaluations. It is rare event for these masses to grow into enormous sizes. Giant cysts can be misdiagnosed as polyhydramnios or intraabdominal ascites. In our case, which was referred to us with the prediagnosis of polyhydramnios, we observed a giant cystic mass originating from the right ovary. We performed right salpingo-oophorectomy during the cesarean section for its management. Pathological examination revealed benign mucinous cystadenoma. The diagnosis and management of adnexal masses should ideally be conducted before pregnancy. Masses reaching the immense sizes during pregnancy can complicate pregnancy, and their management should be specific/personalized to the cases.

Keywords: Cystadenoma, mucinous, ovarian cysts, pregnancy

Introduction

The reported incidence of adnexal masses lies between 0.5 and 2.2% [1]. Giant ovarian tumors account for less than 1% of the ovarian cysts that are observed during pregnancy [2]. Adnexal masses are generally detected in the early stages of pregnancy with the help of ultrasonographic evaluations. These cysts usually become symptomatic after they apply compression to the abdominal organs, further leading to abdominal pain, torsion, rupture, or secondary infection of the cyst. The presence of giant ovarian tumors may result in malpresentation, incorrect calculation of fetal age, difficulties in birth, and disruptions in fetal growth. It may even cause intrauterine growth retardation (IUGR) in some cases [2]. Giant cysts can lead to false ultrasonographic evaluations such as polyhydramnios and maternal intraabdominal ascites, which are more common especially in the third trimester. The size and origin of the tumor, fetal age, complaints, and medical condition of the patient should be considered in the management of giant cysts.

The situation in lower income countries can be different because ultrasonographic examinations are rarely performed during pregnancies. We present a case report that describes a rare presence of a newly diagnosed asymptomatic huge ovarian cyst in a pregnant woman from Niger along with its successful management.

Case History

A 25-year-old, Gravida 1 Parity 0-, and 39-weeks pregnant woman according to the last menstrual period was referred to us with the prediagnosis of polyhydramnios. The patient did not have any gynecological complaints and characteristics in medical history. Moreover, the patient did not have an ultrasonographic examination during pregnancy. Abdominal examination at our center revealed that her abdomen was larger as compared to the corresponding gestational week with no tenderness. An abdominal ultrasonographic examination revealed the presence of four weeks IUGR, along with a mass covering the whole abdominal cavity. No septa or mural nodules were detected in the mass. The ultrasonographic examination could not clearly determine the origin of the mass. All the readings of routine blood tests were within the normal limits. Tumor markers and magnetic resonance imaging (MRI) or computed tomography imaging were not performed on the patients. The patient and her relatives were provided with detailed information about the condition. Thereafter, all the available management/treatment options were

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explored and discussed with them. It was mutually decided for the patient to give birth by caesarian section, and to manage the mass during the delivery. Under spinal anesthesia, abdominal access was achieved by a midline incision. A mass with regular borders covering the whole abdomen was observed. The patient delivered a female baby of 2,700 grams with an APGAR score of 7–8 by lower uterine segment incision. Following uterine involution, it was determined that the mass originated from the right ovary. About 4,000 ml of fluid were drained from the mass. Proper care was taken to prevent the pouring of cyst fluid into the abdomen for minimizing the risk of spreading malignant cells. The patient underwent right-side salpingo-oophorectomy. A huge tumor with a size of $24 \times 15 \times 9$ cm was observed in the right ovary (Figure 1). The patient recovered fully and was discharged on the third postoperative day. Histopathological examination of the mass revealed ovarian benign mucinous cystadenoma.



Figure 1. Huge right adnexal mass during cesarean section after drainage

Discussion

Adnexal masses during pregnancy are usually smaller and generally disappear after the tenth week of pregnancy. Approximately 1% of adnexal masses can reach enormous sizes. The asymptomatic ones are extremely rare among these masses [2]. The most commonly occurring symptom in these masses is pain, which may be mild or severe in the presence of torsion or rupture, and surgical intervention is inevitable in this case. During pregnancy, many anatomical and physiological changes happen in the body, which can cause some pain. Therefore, as in our case, tumor markers may be ignored in the absence of routine controls. The most important tool in the diagnosis of ovarian masses is ultrasonographic imaging that has 96.8% sensitivity and 77% specificity [4]. However, it is difficult to detect the origins of the giant masses by ultrasonographic imaging, especially in the last trimester of pregnancy with the massive growth of uterus. Such a large uterus can make it difficult to visualize the adnexal mass by blocking or changing its localization. In the suspicious cases, MRI may be recommended, if available. The areas that are difficult to visualize with ultrasonography can be imaged using MRI. MRI does not contain harmful ionizing radiation and has an accuracy rate of 100% [5]. Many important factors, such as the size of the masses,

fetal age, and primary complaints, affect the surgical removal of the masses. Potential risks vary according to the trimester of pregnancy. In the third trimester, there is a risk of malpresentation and IUGR due to huge adnexal cyst [6,7]. Because the risks in the second trimester are lower than in the first trimester, the best time for the surgical removal of the ovarian masses is the second trimester [8,9]. Patient's comfort can be significantly increased by the use of the laparoscopic approach. Laparoscopy requires experience and may be complicated in the cases of large tumors and advanced pregnancy [10,11]. Surgery is generally not recommended during the 1st trimester due to the high potential teratogenicity or abortion and during the 2nd trimester, elective surgery also laparoscopy for an adnexal mass still affords some pelvic exposure without the uterine manipulation and has been associated with a lower risk of pregnancy complications. The other option for operation is at the time of caesarean section as in our case. Factors that matter in this option, the higher risks associated with caesarean delivery in general, the potential for better exposure or laparoscopy later, the increased difficulty of ovarian cystectomy at the time of caesarean section, and the patient's wishes and expectance. In the presence of a giant mass, instead of enlarging the incision, first draining, and shrinking, as we did, facilitate excision. Care should be taken to prevent the spread of the cyst contents into the abdomen because of the possibility of abdominal spread of malignant cells during drainage.

Conclusion

The presence of huge masses in pregnancy is a rare condition. The management of these masses should be considered and personalized based on the patient's requirements after the evaluation of the current symptoms, gestational week, and suspicion of malignancy. We presented a case referred to us with polyhydramnios. The surgical management of a giant cyst was performed during cesarean delivery with satisfactory results. The cyst was histopathologically benign. For better maternal and child health, ultrasonographic examination during pregnancy should be supported.

Conflict of interests

The authors declare that there is no conflict of interest.

Financial Disclosure

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Informed Consent

Written consent was obtained from the patient and his parents.

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