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Case Series

Incidental adnexal masses during caesarean section: a case series

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ABSTRACT

Adnexal masses originate in the ovaries, fallopian tubes or surrounding tissue. Adnexal masses can be found in women of any age and pregnancy is no exception. Reasons for adnexal masses going undiagnosed in antenatal period are asymptomatic and small (≤5 cm) mass size; the pregnant patients refused a pelvic examination and a transvaginal USG examination for the fear of abortion during early pregnancy. In 3rd trimester ultrasound, a gravid uterus may obscure the correct visualization and detection of an adnexal mass or it is often missed when we keep our focus on the baby and placenta. As there is also increase in caesarean section rate, the incidence has also increased. Here we presented a case series of 4 different cases, we had described variety of adnexal masses which were diagnosed accidentally during caesarean section and also about their management. Case 1-dermoid cyst, case 2-para ovarian cyst, case 3-complex cyst, case 4-includes 3 cases of simple cyst. Adnexal masses arising in pregnancy are functional, asymptomatic and resolve spontaneously. The risk of malignancy in persistent adnexal masses is low and ultrasonography is the preferred method to assess this risk. If the pathology is incidental finding in caesarean section, it is to be removed in the same setting to avoid surgery later.

Keywords: Dermoid, Ovarian cyst, Ovarian mass, Para ovarian

INTRODUCTION

Adnexal masses originate in the ovaries, fallopian tubes or surrounding tissue. Adnexal masses can be found in women of any age, and pregnancy is no exception. They can be encountered in pregnancy or during caesarean section and its prevalence changes between 1/81 and 1/8.000.[1] So, routine examination of ovaries and adnexa should be practiced during caesarean section.[2] Advances in ultrasound technology enable us to detect more often adnexal masses during pregnancy. However, when compared to early gestation, in third trimester a gravid uterus may obscure the correct visualization and detection of an adnexal mass or focusing on the baby and placenta may keep us from the detection of adnexal pathology and moreover, there may be technical difficulties in evaluating velocimetric features during pregnancy, as the vessels and blood flow surrounding the gravid uterus mainly have high velocity and low resistance characteristics.[3] Along with diagnostic advances, recent rise in trend of caesarean section rate might have given rise to increase in incidence of incidental adnexal masses during caesarean section.

CASE SERIES

This case series included 7 cases of adnexal masses of 4 different types which were detected incidentally during caesarean section and had no prior diagnosis on ultrasound. These cases were recorded over a period of 6 months at our tertiary care center.

Case 1: Dermoid cyst

A 26-year-old G3P2L2 with 39 weeks of gestation with previous 2 LSCS came to ANC ward with complaints of pain at scar site. She was an unbooked case and did not

have any previous antenatal ultrasound reports. She was posted for emergency LSCS in view of scar tenderness. Intraoperatively, the steps of LSCS were performed and uterus was closed after which while performing tubal ligation, there was an incidental finding of a right sided ovarian cyst measuring approximately 7×6 cm (Figure 1). The texture was felt as cystic but had few solid components inside. There was no ascites noted on opening abdomen. Peritoneal washings were collected. A general inspection was done of bowel, mesentery and appendix to rule out any abnormal mass or any lymph node enlargement. The ovary on the left side was inspected and found to be normal. So, decision was taken to do right sided oophorectomy after consent was obtained. After oophorectomy, the specimen was cut open to check contents. Sebaceous fluid with tufts of hair and tooth was found (Figure 2). The specimen along with its contents was sent for histopathology. The histopathology report confirmed the diagnosis of dermoid cyst.

Figure 1: Dermoid cyst.

Figure 2: Cut section showing tufts of hair with sebaceous material.

Case 2: Paraovarian cyst

A 25-year-old primigravida with 9 months of ANC came with complaints of pain in abdomen. She had only one visit in third trimester and one ultrasound report. On examination, she was full term with breech presentation in labor. She was taken for emergency caesarean section for indication primi breech in labor. As she was case of malpresentation, uterus was exteriorized to check for any uterine anomaly. There was evidence of 6×5 cm cystic mass arising from the para ovarian region and ovary was seen separately. Even though it looked like a simple para ovarian cyst, mostly benign, still examination was done the same way as the case 1. Paraovarian cyst was removed and sent for histopathology examination.

Figure 3: Para ovarian cyst (arrows show ovary).

Case 3: Complex cyst

A 27-year-old multigravida with 9 months of ANC came with complaints of pain in abdomen and on examination, she was full term with transverse lie in latent phase of labor. She was unbooked case and with only one visit and she 2 ultrasound reports, one in second and the other in third trimester She was watched for spontaneous progress of labor. There was thick meconium-stained liquor with signs of fetal distress and hence caesarean section was done. After closure of uterus, during routine examination of adnexa there was a multiloculated complex cyst of size 6×7 cm arising from the ovary with minimal solid texture in between (Figure 4). Ovary was removed. Specimen was sent for histopathological examination. The cyst was not recoded in third trimester ultrasound.

Figure 4: Multiloculated complex ovarian mass.

Case 4: Simple ovarian cyst

A 22-year-old full term primigravida conceived spontaneously came with transverse lie in labor. During caesarean section, following uterine closure, when looking for uterine anomalies, there was incidental ovarian simple cyst of size 5×3 cm which was containing clear fluid which seemed to be benign still puncture was not done and instead cystectomy with ovary preservation was done. Figure 5 shows the intraoperative incidental simple cyst.

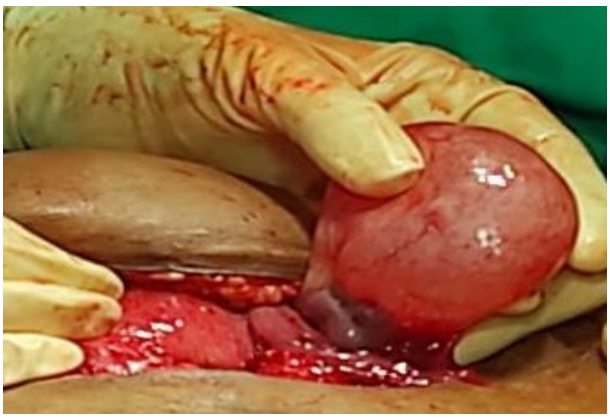

Figure 5: Simple ovarian cyst.

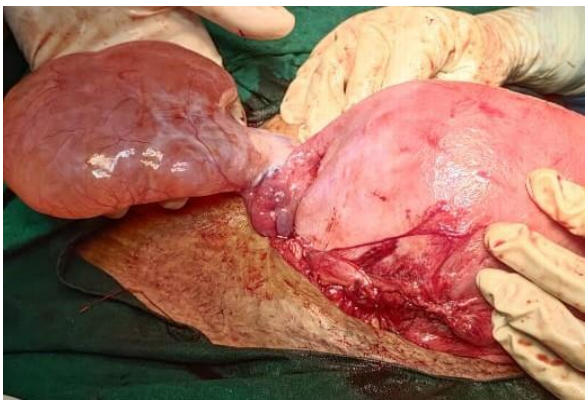

Figure 6: Simple ovarian cyst.

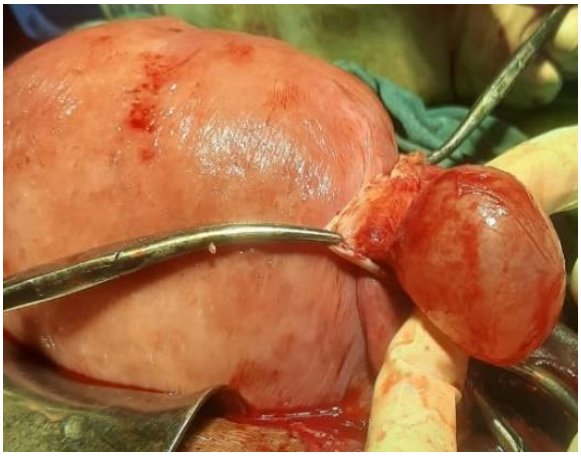

Figure 7: Simple ovarian cyst.

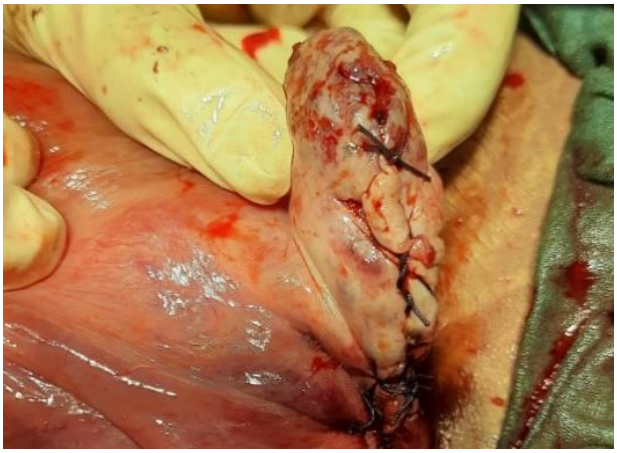

Figure 7: Ovary is conserved after cystectomy.

Similarly, 2 more cases were encountered in our institute where simple cysts were found intra-caesarean. Even though, these cysts looked simple and benign, efforts were taken to rule out malignancy. Figure 6 and 7 show simple cysts. Figure 8 shows the sutures on the ovary after cystectomy.

DISCUSSION

The incidence of adnexal masses in pregnancy is 1%.[4] The dilemma faced by the obstetricians during caesarean section is when they incidentally discover an adnexal mass regarding the medico-legal issues on the informed consenting process.[5] Most of the patients didn't have antenatal diagnosis of the adnexal mass, making the finding at caesarean section time an incidental one. Dermoid cyst is most common pathological finding according to literature, but the percentage varies considerably (28-50%).[6]

In our case scenarios, all the cases had incidental finding of adnexal masses during caesarean section. Reasons for adnexal masses going undiagnosed in antenatal period are asymptomatic and small (≤5 cm) mass size; the pregnant patients refused a pelvic examination and a transvaginal USG examination for the fear of abortion during early pregnancy. In 3rd trimester ultrasound, a gravid uterus may obscure the correct visualization and detection of an adnexal mass or it is often missed when we keep our focus on the baby and placenta. Moreover, there may be technical difficulties in evaluating velocimetric features during pregnancy as the vessels and the blood flow surrounding the gravid uterus mainly have high velocity and low resistance characteristics. In a study conducted by Yu et al the incidence of masses discovered during CS was much higher than that (0.49%) detected before and during pregnancy.[7] Therefore, it is a need now to promote the use of sonography (USG) for early diagnosis and management of such masses. Post vaginal delivery, routine puerperium USG can be done in patients with no antenatal scan.

Management of ovarian cysts depends on the size of cysts. Cysts <5 cm and gross features of benign masses (unilocular, cystic, no presence of solid components, thin walled, absent ascites and adhesions to nearby organs) can be managed conservatively. Monitoring of such masses is done by regular follow-up. Most of them resolve spontaneously over time. Cysts >10 cm size are generally removed due to risk of torsion, rupture or increase chances of malignancy. In our study, all cyst was between 5-10 cm in size. Management of cysts with diameter between 5-10 cm is controversial, if intra-operative features showed solid components, thick wall cyst, septae and nodules like in cases 1 and 3, it was better to remove the entire pathological ovary (ovariectomy). If the features were benign like in cases 2, 4 and Figure 5 and 6, ovarian cystectomy can be performed with all surgical precautions and specimen was sent for histopathological examination.

In our institute, we excised paraovarian-paratubal mass of any size found incidentally during caesarean section because of common risk of torsion (case 2). As stated by Dede et al incidental adnexal masses should be surgically removed at the time of caesarean section, avoiding later surgery and establishing malignancy status of the mass.[8] Leiserowitz concluded that whenever possible intact removal of the ovarian masses should be performed, especially in suspicious cases. Cystectomy is the recommended procedure, ovariectomy and ovariectomy with salpingectomy being reserved for complex cases. In case of suspicion of malignant masses during the surgical examination, adequate staging and debulking of the adnexal masses is the adequate treatment. Cyst aspiration is not recommended now as it is not always therapeutic. It carries a risk of spillage or seeding of cancer cells into the peritoneal cavity, thus altering the stage and prognosis.

CONCLUSION

Adnexal masses arising in pregnancy are functional, asymptomatic and resolve spontaneously. The risk of malignancy in persistent adnexal masses is low and ultrasonography is the preferred method to assess this risk. If the pathology is incidental finding in caesarean section, it is to be removed in the same setting to avoid surgery later.

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