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CASE REPORT

A MASSIVE POSTPARTUM MUCINOUS CYSTADENOMA IN A TEENAGER

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ABSTRACT

Introduction: Huge ovarian cyst is seldom reported in the gravid-puerperium period, and delay in its diagnosis may result in unpleasant foeto-maternal outcomes.

Case presentation: A 19-year-old single lady presented with unresolved progressive abdominal distension three days after spontaneous vaginal delivery at a traditional birth attendant (TBA) home. Diagnostic and therapeutic laparotomy with salpingo-oophorectomy yielded a huge multicystic ovarian mass. The histopathology report revealed mucinous cystadenoma of the right ovary.

Conclusion: Post-partum huge ovarian cyst is rare, hence systemic approach is vital in its management to prevent postoperative complications, and recurrence as well as preservation of future fertility.

Keywords: postpartum; puerperium; mucinous cystadenoma; Teenage pregnancy.

INTRODUCTION

Teenage pregnancy is generally considered high risk with varying complications during pregnancy and puerperium.[1,2] The occurrence of ovarian neoplasm in adolescent age is rare with about 90% of such masses proven benign.[3,4] In this age group, germ cell tumours remain the predominant subtypes accounting for more than two-thirds of adolescent ovarian tumours, with only less than a third being epithelial in origin, which are the predominant variants in adult females.[3,4]

Ovarian tumours above 10 centimetres are considered giant or huge, are rare and commonly benign, especially in the younger age groups and pregnant women.[3,5] Adolescent ovarian tumours seldom increase to achieve a huge size without raising any symptoms, except in failed early detection, late presentation or delay in instituting appropriate treatment.[5,6] Contemporary advances in radiological diagnostic techniques have reduced the trend and incidence of huge ovarian tumours in paediatrics and adolescent females, especially with early recognition of symptoms and early presentation for care.[6]

Huge ovarian tumours are associated with abdominal distension, pain, and other pressure symptoms, which are likely phenomena that account for patients' presentation for hospital care in the developing world.[5] Detection of huge ovarian cysts in adolescents causes considerable worry, due to the potential risk of malignant transformation.[7] Also, massive ovarian neoplasms in adolescents raise enormous concern for the relations and pose significant operative challenges to gynaecologists and other healthcare providers.[3]

The coexistence of huge ovarian tumours during pregnancy, labour and puerperium in

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teenage pregnancy potentially increases the maternal and perinatal morbidity and mortality. These range from maternal severe hypotension, to increased venous return, cardiac failure, respiratory problems as well as intrauterine foetal growth restriction or death, dysfunctional labour, preterm delivery, malpresentation, and ruptured ovarian cyst.[8,9]

Massive ovarian tumours in pregnancy are rarely unidentified in pregnancy except in the absence of appropriate antenatal care services or poor health-seeking behaviour of the patient.[8,9] In this report, we present a case of symptomatic postpartum massive mucinoid ovarian tumour in a teenager.

CASE PRESENTATION

A 19-year-old unbooked para 1+0 none alive unmarried young lady, presented at the obstetrics and gynaecological clinic of the General Hospital Ilorin three days after delivery at a traditional birth attendant (TBA) home. She was brought to the clinic by a staff nurses of the hospital who was her relation with a complaint of progressive abdominal distension.

She had noticed an unduly distended abdomen in the mid-pregnancy period at about the gestation age of 28 weeks which was ignored and considered to be due to a big baby. The pregnancy was unplanned and out of wedlock, hence she did not book the pregnancy due to lack of family support and financial constraints. She reported at the TBA in labour at term and an urgent obstetric ultrasound done on account of an overdistended abdomen was said to have revealed foetal macrosomia and a coexisting ovarian cyst. She subsequently had a spontaneous vaginal delivery of a fresh stillborn.

However, she noticed a persistently distended abdomen after delivery with intermittent lower abdominal cramps and constipation but no vomiting or fever. This necessitated her presentation at the hospital. Her general examination was normal except for mild pallor, and tachypnea; her respiratory rate was 25 cycles per minute, and her chest was clear clinically. Her pulse rate was 124 beats per minute and her blood pressure was 90/60 mmHg. The abdomen was markedly distended with abdominal circumference of about 98cm and an abdominal height of 34 cm (figure 1). There was a non-tender massive cystic swelling, smooth surface with slight mobility in the transverse direction. A vaginal examination revealed normal lochia and no abnormal findings. Urgent abdomino-pelvic ultrasound scan in our facility showed a right sided thick-walled multiseptated huge cystic abdominopelvic mass measuring 34.2 cm by 28.7 cm with internal echoes, presumably of ovarian origin. The left ovary was poorly delineated, while other abdominal viscera were normal although compressed to the left side by the mass. The diagnosis of a right huge complex ovarian cyst was made.

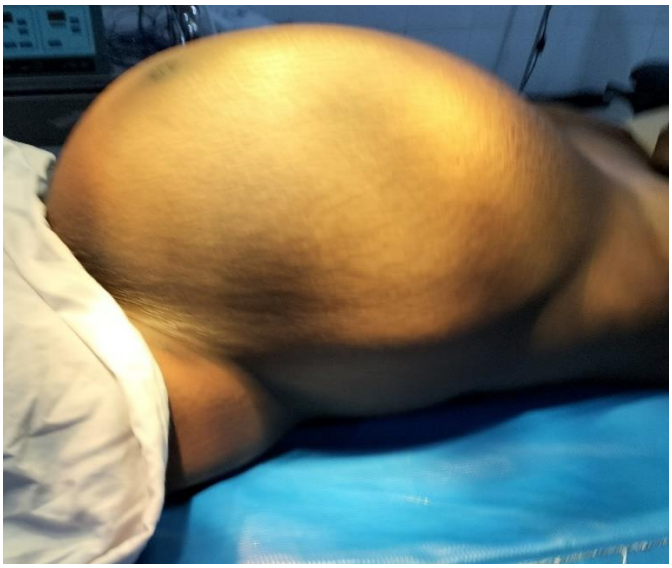

Figure 1: Markedly distended abdomen

She had urgent laboratory investigations: haematocrit level of 26%, urinalysis, liver function test, electrolytes, urea, and creatinine were within normal units. Tumour markers and computed tomography imaging were not performed due to the patient's financial constraints. The patient and her relative were

duly counselled on the provisional diagnosis and options of treatment. The haematocrit level was optimized preoperatively to 33% by transfusion with two units of packed red cells.

She had exploratory laparotomy and right salpingo-oophorectomy. The intraoperative findings were a huge, tense, smooth-surfaced, shiny ovarian cystic mass arising from the right ovarian pedicle and extending up to the epigastrium measuring 48cm×40cm×26cm (figures 2 & 3), intact bulky uterus, healthy left ovary and fallopian tube. The liver, spleen and bowels were normal. The mass was delivered from the abdominal cavity, double clamped at the right ovarian pedicle, excised and ligated; right salpingo-oophorectomy was performed; the mass weighed 13.1kg. Her postoperative recovery was uneventful, hence she was discharged home on the fourth day.

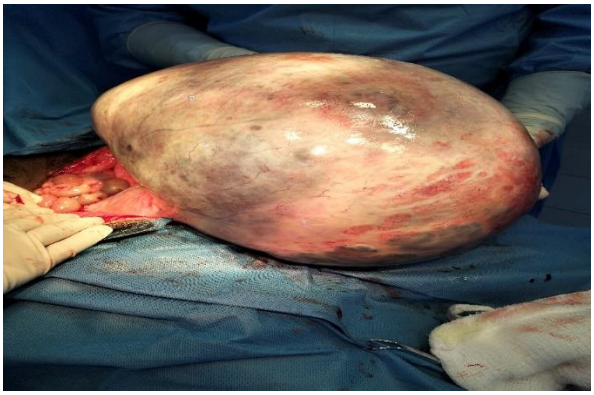

Figure 2: Huge cystic ovarian mass

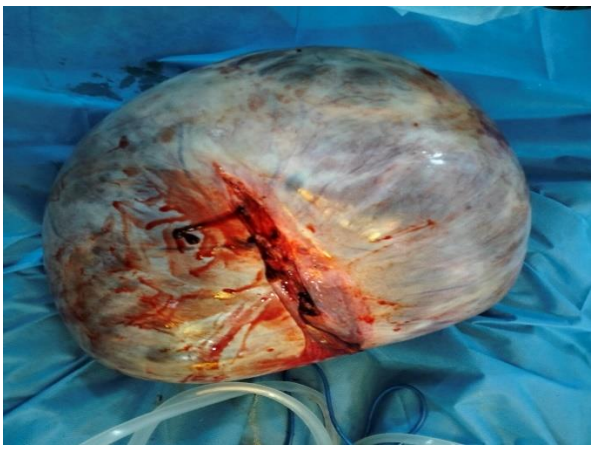

Figure 3: Closer view of the huge cystic ovarian mass

Histopathological study of the specimen reported a mucinous cystadenoma of the ovary. She had two subsequent gynaecological clinic follow-ups during which the histology report was explained to her and her relation, and thorough counselling on close monitoring of the second ovary was communicated to her.

DISCUSSION

Puerperium is a critical stage of maternity care in obstetric practice due to the possible dynamics and resolving effects of physiological change of pregnancy.[10] This period is not without risk of morbidities and complications of pregnancy and delivery. The processes of antenatal, intrapartum and postpartum events in teenage pregnancy attract potential high risk of maternal and perinatal morbidity and mortality.[10] In this reported case, there was avoidable perinatal mortality and ameliorable maternal morbidity. The late presentation and lack of appropriate obstetric care contributed in no small measure to the constellation of unwarranted obstetric outcomes.

The coexistence of ovarian cysts with pregnancy is considered a rare phenomenon which may contribute in no small measure to maternal and perinatal complications.[11] Hence, early detection of any coexisting abdominopelvic mass in pregnancy including ovarian cyst is hinged on a simple obstetric ultrasound scan examination during pregnancy which may prompt definitive treatment or conservative care till the postpartum period.[10–12] The patient in our setup was a teenager in early puerperium who had no opportunity for early ultrasound diagnosis of ovarian cyst in pregnancy due to a lack of antenatal care check-ups as a result of poor family support, illiteracy, low socioeconomic status and financial constraints.

Benign mucinous cystadenomas constitute the largest occurring mucinous tumours in the

body with a high propensity to grow to extremely large sizes in multicystic nature, containing mucus fluid.[13]And any ovarian cyst with a dimension of 10cm and above is considered huge/giant, which occasionally may not raise any symptom, as was the case with our patient. [12, 13,14]

The management of ovarian cyst is generally dependent on the symptomatology and characteristic features of the ovarian cyst.[11] The definitive management of unresolved ovarian cysts greater than 10 cm is emergency or elective surgical intervention through laparoscopic or laparotomy approach with the primary aim of cystectomy, and in extreme cases salpingo-oophorectomy. These approaches are dependent on the size of the cyst, equipment and level of surgeon's experience.[15] In this reported case, laparotomy with salpingo-oophorectomy was performed because laparoscopy surgery was not possible due to the huge nature of the cyst, and the patient was not financially buoyant.

In light of the huge nature of the ovarian cyst, the option of cystectomy may result in recurrence or sometimes resurgence of another type of benign or malignant tumour in the future, thus salpingo-oophorectomy was performed.[16] Salpingo-oophorectomy of the huge ovarian cyst in the active reproductive age group poses increasing future fertility challenges, hence three-monthly close follow-up and monitoring of the contralateral ovary was advised in our patient.

CONCLUSION

The prognosis of pregnancy with coexisting ovarian cyst is hinged on early diagnosis, careful antenatal care follow-ups, and timely and prompt intervention to mitigate against foeto-maternal complications.

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