

A ruptured seventeen weeks' ectopic pregnancy: A case report

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Abstract

Ectopic pregnancy is a common condition with a prevalence of 2% in all pregnancies. Implantation of the developing blastocyst outside the uterine cavity leads to ectopic pregnancy. About 95% of ectopic pregnancies occur in the different segments of the fallopian tubes. Usually, an ectopic pregnancy grows up to 1.5-3.5 cm and any size greater than this leads to rupture. We present a case of ruptured ectopic pregnancy in which the foetus had a crown-rump length (CRL) of 12 cm was retrieved. To our knowledge, this is the largest foetus recovered from a ruptured ectopic pregnancy at the ampulla of fallopian tube reported in the literature. Timely diagnosis and proper management is the key to reduce morbidity associated with it.

Keywords: Ectopic pregnancy Hemoperitoneum Implantation Foetus Case report.

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Introduction

Ectopic pregnancy is a common condition with a prevalence of 2% in all pregnancies.¹ Implantation of the developing blastocyst outside the uterine cavity leads to ectopic pregnancy. About 95% of ectopic pregnancies occur in the different segments of the fallopian tubes.² Most of these are implanted at ampulla and the rest, about 2-3%, are present at the cornua.¹ Ovaries, peritoneal cavity, Caesarean section scar, or cervix are the other potential sites of ectopic pregnancy. Usually, an ectopic pregnancy grows up till 1.5-3.5 cm and any size greater than this leads to rupture.² A case of ruptured ectopic pregnancy was operated upon in which a foetus of CRL of 12 cm was retrieved. This case was managed on the emergency floor of North Surgery Department of Mayo Hospital Lahore from September 1 to September 5, 2019. To our knowledge, this is the largest foetus recovered from a ruptured ectopic pregnancy at ampulla of fallopian tube reported in the literature.

Case

A 25-year-old female G2P1, at 17-week gestation,

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Figure-1: Well-formed foetus at 17 weeks and of CRL 12 cm.

presented to the Emergency Department (ED) with complaints of lower abdominal pain and constipation since one day. It was associated with four to five episodes of vomiting. Pain became generalised afterwards. She did not have any previous history of trauma or any symptoms such as vaginal bleeding and expulsion of the foetus. The patient did not have any history of infertility and subfertility but had episodes of pelvic inflammation on and off. She mentioned complaints of vaginal discharge especially after the birth of the first child but she did not have any documented treatment for this complaint. She did not have any previous medical history.

On examination, the patient had increased thready pulse, decreased systolic blood pressure and was in respiratory distress. She had severe pallor. Her abdomen was distended and tender more in the lower region. Digital Rectal Examination did not show any significant findings. On presentation her haemoglobin was 6.1 mg/dL.

Ultrasound scan showed absent foetal cardiac activity, presence of abdomen pelvic ascites, but it identified an intrauterine foetus. Figure shows the foetus out of the cavity and gives an estimate of its size. Blood group and cross matching was done. The patient was taken to the theatre for urgent laparotomy. On opening the abdomen, 2000 ml haemoperitoneum was found along with a dead foetus which had CRL of 12 cm. It was implanted on the right distal tube. Right salpingectomy was done after abdominal lavage. Left-sided tube was also checked. Per operative gynaecology consult was taken. The patient had a smooth recovery from general anaesthesia and was discharged four days after the surgery and the transfusions which were given to compensate for the haemorrhage from rupture. There was no wound infection or any other complication. She was referred to a gynaecologist at the time of discharge from our unit.

Discussion

Ectopic pregnancy has a prevalence of up to 2% of all gestations.³ While fallopian tubes are the most common site, abdominal cavity, cervical, ovarian, and Caesarean section scar are the other potential sites, and they have also been reported.^{4,5} Factors that predispose women to ectopic pregnancies are more or less those which disrupt the anatomy of the fallopian tube.³ These may be congenital, but these anatomical disruptions are mostly due to prior tubal ectopic pregnancies, elective abortions, prior miscarriages, and sexually transmitted infections. Smoking and advanced maternal age also contribute to the risk of ectopic pregnancy.⁶

Ruptured ectopic pregnancy is a potentially life-threatening condition and around 16 % of women present to the ED with first-trimester ectopic pregnancy.⁷ We present a case of ruptured ectopic pregnancy of 16 weeks and 2 days with implantation at ampulla and CRL of 12 cm. Literature is full of cases where large-sized foetuses have been retrieved from sites other than the tube but in case of tubal pregnancies, data in the literature is limited.⁸

Goswami et al have reported a case of un-ruptured twin ectopic pregnancy in a fallopian tube with a foetus having CRL of 2 cm.⁹ Funiamizu et al reported a case of bilateral tubal ectopic pregnancy which had an unruptured gestational sac of 4cm.¹⁰ Ashfaq et al reported that tubal rupture is still the most common cause of maternal morbidity and mortality after ectopic pregnancy but the maximum size reported by them was 10 weeks.¹¹ In our case, lack of symptoms before presentation was astonishing.

Literature shows large cornual ectopic pregnancies, and

most cases presented substantially earlier than 19-weeks but none of these were tubal pregnancies.¹² An ectopic pregnancy in cornua can grow larger in size due to elastic tissue present in the adjacent myometrium. But when it comes to ectopic pregnancy mass size in fallopian tubes, it is normally 1.5-3.5 cm.¹³ The reason is that the fallopian tubes have no elastic myometrium, so it ruptures once tubal ectopic mass grows beyond more than a certain limit. In our case, a foetus of 12 cm CRL was retrieved which was considerable regarding the size range shown in literature. It was a CRL, consistent with 17 weeks, 3 days and was unusually large. To our knowledge, it was the largest ruptured tubal ectopic pregnancy. Greene reported an ectopic tubal pregnancy mass which was of 20 cm. However, this was a missed abortion in tubal pregnancy which subsequently got implanted in the abdominal cavity where it grew till 20 cm. It also turned out to be a twin pregnancy.¹⁴

Modern diagnostic modalities have been showing these conditions at earlier stages but they have their limitations,⁷ and cases like ours can go undiagnosed. Ultrasound was unable to detect ectopic pregnancy in our case as it showed an intrauterine mass but on opening the abdomen it was found to be implanted in the distal part of the tube.

Moreover, risk factors described in literature and symptoms to monitor and predict the likelihood of ectopic pregnancy were of no importance here. The patient was previously asymptomatic and had not have any previous surgery, indicating that monitoring and screening of women at low to moderate risk should not be ignored.

Treatment of ectopic pregnancy, like its diagnosis, has been improved by recent advances in technology but it still has its own risks.¹⁵ Gestations that have sonographic proof of being outside the uterus, and measures smaller than three and a half cm in haemodynamically stable patient may be treated by non-invasive expectant or medical management; however, in women who are haemodynamically unstable, have a beta-HCG levels > 5000 IU/L, or have a pregnancy that has sonographic proof of being outside the uterus and size greater than three and a half cm, surgery is recommended.⁶ Laparoscopic salpingectomy or salpingotomy are the preferred surgeries in haemodynamically stable patients as they are less invasive than open surgery; however, converting to open surgery is recommended if the ectopic pregnancy cannot be fully removed and haemorrhage cannot be controlled.³

Massive haemoperitoneum found in the current case

shows how life-threatening an ectopic pregnancy can become and its risk associated with higher gestational age. Ectopic pregnancy generally leads to greater morbidity and mortality at the beginning of pregnancy.¹⁶ It causes future pain and decreased fertility, and in acute cases it causes intraperitoneal haemorrhage and anaemia, requiring blood transfusion. Approximately 5% of all maternal deaths are related to ectopic pregnancy, and almost half of these cases are not diagnosed in time.¹⁷

Conclusion

Ectopic pregnancy in the fallopian tubes or any other site can grow up to a large size. They can cause significant morbidity and mortality if they go unnoticed. Timely diagnosis and proper management is the key to reduce the morbidity associated with it.

Disclaimer: Informed and written consent was taken from the patient for surgery and for publication of the case.

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