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Case Report

Interstitial pregnancy: a case report

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ABSTRACT

Interstitial pregnancy is a life-threatening event. Strong clinical suspicion and prompt action can reduce maternal morbidity and mortality. Specific ultrasound features point towards the diagnosis. Various treatment modalities are available as there is no consensus for a treatment of choice. The management option depends upon the general condition of the patient and also on fact whether the ectopic pregnancy has ruptured or not. Here we present a case of an unruptured interstitial pregnancy.

Keywords: Interstitial pregnancy, Ectopic, Cornuostomy, Laparoscopy

INTRODUCTION

A pregnancy is termed as an ectopic pregnancy, when the fertilized ovum gets implanted outside the endometrial cavity. When the fertilized ovum gets implanted in the interstitial part of the fallopian tube, it is called an interstitial pregnancy, accounting for 2-4% of all tubal ectopic pregnancies.[1]

Etiologies include pelvic inflammatory disease, in vitro fertilization-assisted reproductive techniques, infertility or intra uterine contraceptive device usage.

Complications include severe hemorrhage as a result of rupture of the tube as the pregnancy advances and maternal mortality, which is very high as compared to other tubal ectopics.[2]

The interstitial part of the tube is thicker and highly vascular because of the anastomoses between the ovarian artery and the uterine artery. Hence, interstitial ectopic pregnancy, if ruptures, can lead to life threatening hemorrhage.[3]

Thus, early detection and a high degree of suspicion among the clinician and radiologists is needed to prevent maternal morbidity and mortality.

Various treatment options are available in literature. Here, we present a case of an interstitial unruptured pregnancy, managed laparoscopically with cornual resection.

CASE REPORT

A 36-year-old female, G2P1L1, previous cesarean section, presented to the outpatient department with 7 weeks of amenorrhea and lower pain abdomen which was sudden in onset. A urine pregnancy test was done, which was positive. An urgent ultrasound was ordered which revealed an empty uterine cavity with gestational sac located at the region of right cornu. This was suggestive of right interstitial ectopic pregnancy. Further, an interstitial line sign was seen, and together with the 3D ultrasound, confirmed the diagnosis of right sided interstitial ectopic pregnancy. There was no evidence of hemoperitoneum, but an organized hematoma was seen around the gestational sac. The patient was admitted and all pre operative workup was done.

It was decided to perform laparoscopy. The pre op investigations were within normal limits and the patient was prepared for a laparoscopic excision of the interstitial pregnancy. A laparoscopic cornuostomy was done, products of conception removed and cornua was repaired using purse string sutures. The intra operative and post operative periods were uneventful.

DISCUSSION

Interstitial pregnancy is a potentially life-threatening condition. The classic presentation or triad of ectopic pregnancy includes amenorrhea, bleeding per vaginum during early pregnancy and abdominal/ pelvic pain. Some may present in shock due to rupture of the ectopic gestation. However, some patients may even be asymptomatic.[4]

Early diagnosis is critical to prevent any catastrophe and also to formulate the management option. Diagnosis can be easily made by antenatal ultrasound.[5] The ultrasound features include an empty uterine cavity, gestation sac 1 cm from the lateral edge of uterine cavity and 5 mm myometrial layer surrounding the sac.[5,6] An interstitial line sign seen on ultrasound has been described by Ackerman et al that refers to an echogenic line extending up to the centre of the gestation sac.[5,7]

The above findings on a 2D ultrasound can be confirmed on a 3 D ultrasound, to rule out angular pregnancy, a close differential for interstitial ectopic pregnancy. In the latter, the pregnancy implants in the lateral angles within the uterine cavity.

A vast number of approaches for management have been mentioned in the literature. The management options include expectant, medical or surgical. Recently, conservative approaches have been introduced.[2] The different treatment options are dependent on the hemodynamic stability of the patient.

Patients who are hemodynamically stable with an unruptured interstitial pregnancy, medical management using Methotrexate injection is safe and effective. Some even recommend using methotrexate as first line therapy in such patients.[8] Methotrexate can be either given locally under transvaginal ultrasound guidance /or the systemically.

Surgical management options include laparoscopy, hysteroscopy or laparotomies. Laparoscopic approach includes cornuostomy, removing the products of conception followed by cornual repair. A more radical surgery includes salpingectomy of the affected side. Endoloop application followed by encircling suture / or the purse string suture at the cornual base can also be done.[5,9]

Few studies have reported hysteroscopic resection of cornual endometrium under laparoscopic guidance.[2,10]

Laparotomies may have to be performed in an emergency situation when the patient presents in haemodynamic shock due to ruptured interstitial pregnancy.[11]

CONCLUSION

Interstitial pregnancy may become a life-threatening condition, if ruptured. These days, due to advancements in imaging and improvement in quality of care, ectopic pregnancies can be diagnosed early and catastrophes prevented. The clinician should try to manage such pregnancies with a conservative approach laparoscopically to preserve the reproductive potential of such women.

There is no consensus on the best treatment option to manage an interstitial pregnancy. Management option depends on patient presentation, hemodynamic stability, desire of future fertility and experience of the clinician.

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