

# A Case of Broad Ligament Pregnancy

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## Abstract

Broad ligament pregnancy is a rare type of ectopic pregnancy. It is a type of secondary abdominal pregnancy. A 30-years-old lady conceived following ovulation induction. She had consultation done elsewhere diagnosed as missed abortion induced with misoprostol. Following which she developed bleeding and had ultrasonography done. The impression was absence of foetal pole in the adnexa and normal uterus with echogenic endometrium. Later on she developed sudden abdominal pain and bleeding for which she referred to our hospital with no other relevant medical or surgical history. It was diagnosed as a ruptured ectopic pregnancy. Since she was hemodynamically unstable, emergency laparotomy was done. She had a left broad ligament ectopic pregnancy which had ruptured. Both the tubes, ovaries, uterus was found intact. Excision of the ruptured ectopic mass in the left side of the broad ligament was done. The specimen was sent for histopathological examination and confirmed. She was well and discharged on the eight day and followed up after a month. She was menstruating regularly.

**Keywords:** Broad ligament pregnancy, Ectopic pregnancy, Laparotomy, Salpingectomy, Ultrasonography

## INTRODUCTION

Ectopic pregnancy is type of pregnancy which occurs outside the normal uterine cavity. Usually fallopian tube is the commonest site for ectopic pregnancy in more than 90% of case. The pregnancy following tubal rupture growing in the broad ligament is called Secondary Broad ligament Pregnancy. Primary broad ligament ectopic pregnancy is rare event when pregnancy occurs within the broad ligament itself. Here we are describing a case of primary broad ligament pregnancy diagnosed only on laparotomy, but clinical diagnosis as well as ultrasound did not helped us to diagnose the broad ligament pregnancy. Even rare criteria should be thought of during laparotomy even if missed clinically.

## CASE REPORT

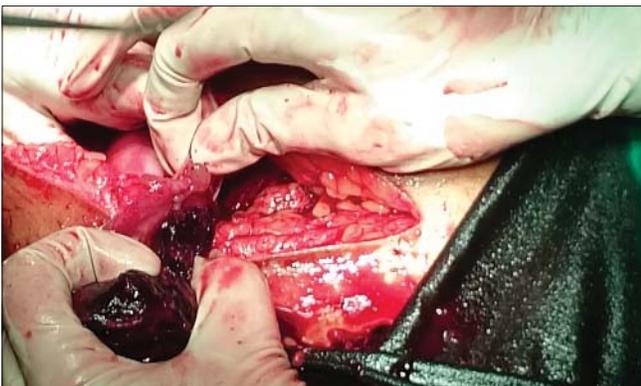
A 30-years-old lady presented with severe abdominal pain and vaginal bleeding for the past 48 hours. She was

referred from nearby hospital. She is married for 3 years. She had taken drugs for infertility. She conceived after taking drugs for induction of ovulation. After 36 days of amenorrhoea, urine pregnancy test was "positive". She had an ultrasound done. She was told that she was "pregnant". Then she went for a review on the 60th day of amenorrhoea (D60), an ultrasound was taken and she was told that it was a "missed abortion". The reports are not available with her. She was given misoprostol tablet after 5 days and she developed scanty bleeding. On D65, she had an Ultrasonography done. The report says "no foetal pole seen in adnexa and uterus had echogenic endometrium of thickness 7 mm present". On D90, she had severe abdominal pain, nausea, sweating and vaginal bleeding. She went to a nearby hospital from where she was referred here. She was pale, anaemic, pulse was thready and her blood pressure was 90/40. Her haemoglobin was 5 gm/dl. Her abdomen was distended, and there was rigidity in the lower part of the abdomen. On vaginal examination, severe tenderness was noted in the fornices. Movements of the cervix were painful and

the uterus was just bulky and floating. It was diagnosed clinically as a case of ruptured ectopic pregnancy with hemoperitoneum. Ultrasound was done immediately. The report says “a large heterogeneous mass of size 71 × 56 mms seen in the left adnexa close to the ovary, No foetal pole seen, free fluid in the pouch of douglas and flanks”. The impression was that of a ruptured ectopic pregnancy. Urine pregnancy test was negative. Serum  $\beta$ -HCG was done. It was low. All routine investigations were done. Three units of blood were kept ready for transfusion on the table. Intravenous antibiotics were given. Patient was taken up for laparotomy. There was hemoperitoneum, more than 1.2 litres of blood and plenty of clots were removed. There was an ectopic broad ligament abdominal pregnancy of size 7 × 6.7 cms on the left side (Figure 1). The ovaries, the tubes and the uterus were found to be intact. Excision of the ectopic mass from the broad ligament was done (Figure 2) and left tube especially the fimbrial portion was found attached to the mass close to the left ovary. So, left salpingectomy was done because the mass was found firmly adherent to the fallopian tube and could not be removed separately. Histopathology confirmed the diagnosis of broad ligament pregnancy. Patient was discharged. She came for review. She was doing well.



**Figure 1: Ectopic mass of size 7 × 6.7 cms with intact fallopian tube and plenty of clots seen during laparotomy**



**Figure 2: Removing the ectopic mass attached to fimbrial portion of left fallopian tube**

## DISCUSSION

Primary abdominal pregnancy wherein the fertilized ovum gets implanted into the abdominal cavity is very rare.<sup>1</sup> Secondary abdominal pregnancy occurs in ovary, douglas pouch, broad ligament, liver, spleen and sigmoid colon.<sup>2</sup> Broad ligament pregnancy was first reported by Loschge in 1816. Secondary abdominal pregnancy usually occurs after the tubal rupture or tubal abortion. Intra-ligamentous pregnancy is a type of abdominal pregnancy which develops between the leaves of the broad ligament after the rupture of the tubal pregnancy or a tubal abortion. The triad of ectopic pregnancy is amenorrhoea, abdominal pain, vaginal bleeding. The characteristic feature is abdominal pain precedes vaginal bleeding. The diagnostic investigations namely  $\beta$ -HCG, transvaginal ultrasound (TVS), laparoscopy are mandatory.<sup>3</sup> Whenever the  $\beta$ -HCG is more than 1500 IU per mL, by TVS a gestational sac should be seen in the uterus, when the  $\beta$ -HCG is more than 6000 IU per mL, it is possible to see gestation sac by trans-abdominal route. When gestational sac is missing ectopic pregnancy is kept in mind. This is the discriminatory zone. The most important factor is doubling of  $\beta$ -HCG in 48 hours is noted in a viable intrauterine pregnancy. Low  $\beta$ -HCG levels are noted in non viable intrauterine and ectopic pregnancy. Serum progesterone level less than 5ng per ml, also helps in the diagnosis. Laparoscopy is the gold standard in the diagnosis of unruptured ectopic. But in hemodynamically unstable patients only laparotomy is mandatory. Sometimes a broad ligament pregnancy can grow upto a full term and delivered by laparotomy.<sup>4</sup> In such cases the management of the placenta is extremely difficult because it will be adherent to the intestines. Sometimes a broad ligament leiomyoma and a broad ligament ectopic gestation can coexist.<sup>5</sup> Rare case of extra-uterine abdominal pregnancy has been reported and caesarean delivery was done with good maternal and foetal outcome.<sup>6</sup> Since the patient was hemodynamically unstable, laparotomy was done, otherwise laparoscopic excision is possible.<sup>7</sup> After In vitro fertilisation, broad ligament pregnancy has been reported.<sup>8</sup>

## CONCLUSION

This case of broad ligament ectopic pregnancy is reported here not only because of its rarity but also the diagnosis is a challenge. The value of  $\beta$ -HCG is of great clinical importance in the diagnosis and also ultrasound is a mainstay but in complicated cases the repeated review of the patient is mandatory. Sometimes the diagnosis can be missed like a bolt in the blue sky when there is lack of correlation between clinical findings and investigations. Wherein clinical findings should be given more importance than other things. The old saying is “in a reproductive age

group lady with atypical amenorrhoea, pain abdomen and bleeding, think of an ectopic pregnancy”, still holds good.

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