Abstract: Pregnancy in the broad ligament is a rare form of ectopic pregnancy. The diagnosis is seldom established before surgery. A 27 year old pregnant woman, gravida 3, abortion 2, with 39 weeks of gestation, presented with loss of fetal movements for 2 days. She had 2 previous spontaneous abortions, one at 3rd month of pregnancy and second at 2nd month of pregnancy. Her clinical examination revealed stable vital parameters and a uterine size corresponding to 28 weeks with absent fetal heart sounds. Ultrasonogram revealed an empty uterine cavity, with a single dead fetus in the abdominal cavity very close to the left side of the uterus. A provisional diagnosis of 1. Rupture uterus 2. Secondary abdominal pregnancy was made and proceeded with laparotomy which revealed left broad ligament pregnancy. Patient had uneventful post operative recovery.

Keyword: Broad ligament, ectopic pregnancy, ultrasonography

INTRODUCTION
Pregnancy in the broad ligament is a type of ectopic pregnancy. It is an uncommon form of ectopic pregnancy with a reported incidence of 1 in 300 ectopic pregnancies. The pathogenesis of broad ligament pregnancies can be explained by two theories. The first is a result of primary implantation in the broad ligament. The second is a secondary implantation with original implantation of the zygote having occurred elsewhere, such as fallopian tubes, ovaries and peritoneal surface. According to previous reports, pregnancy in the broad ligament is hardly diagnosed before surgical intervention even using ultra sonogram. The management of broad ligament pregnancy is surgical removal of the fetus and placenta.

CASE REPORT
A 27 year old woman, gravida 3, abortion 2, unbooked case with history of 9 months amenorrhea, with a gestational age of 39 weeks came to our hospital with the complaints of loss of fetal movements for 2 days. There were no complaints of abdominal pain, abdominal distension or bleeding or draining per vaginum. She had regular menstrual cycles of 5/30 days. She had been married for 2 years. Her obstetric history revealed two spontaneous first trimester abortions which were not certified. The present conception was a spontaneous one and she was not on any contraceptive practices in between. Her past medical and family history was unremarkable. Antenatal period was uneventful except for the present complaint of loss of fetal movements for 2 days. She had an ultrasound at 20 weeks suggestive of single live intrauterine fetus with corresponding growth and a low lying placenta. Physical examination revealed mild pallor, blood pressure of 110 / 80 mm of Hg, pulse rate of 86 / min. Abdomen examination revealed uterine enlargement of 28 weeks, fetal parts were palpable and fetal heart was not localized, no free fluid in abdomen. Per vaginal examination revealed the cervix to be drawn up against symphysis pubis, uneffaced, Os closed, bogginess and fullness was felt in the posterior and left fornix. No show or draining per vaginum and the presenting part could not be reached. Investigations revealed her Hb 9.2 Gms, clotting time - 6 min, clot retraction time 9 min, blood sugar – 78 mg/dl. Trans abdominal ultra sonogram revealed an empty uterine cavity, single dead fetus in the peritoneal cavity with gestational age of 32 weeks in a pseudo sac in left iliac fossa. There was no free fluid in the abdomen. A provisional diagnosis of 1. Rupture uterus 2. Secondary abdominal pregnancy with fetal demise was made and patient was taken up for laparotomy. Intra operative findings: 1. There was no hemoperitoneum 2. Uterus was intact, no evidence of rupture. So LSCS was proceeded by lower segment uterine incision. Uterine cavity was found to be empty. Uterus was delivered out and on careful examination fundus of the uterus was displaced to the right side. There was a mass in the left adnexa about 30 x 20 cms occupying the region of broad ligament, which could not be separately made out from the uterus. 3. Right fallopian tubes and ovaries were normal. Left fallopian tube and ovary were not visualized and were displaced posteriorly by the mass. Differential diagnosis of a rudimentary horn was excluded by identification of round ligament which was medial to the mass, and fallopian tube origin which was superomedial to the mass. Both leaves of Broad ligament on the left side appeared hypertrophic. There was no communication between the uterus and the mass. An intra operative diagnosis of left broad ligament pregnancy was made and the anterior peritoneal reflection of broad ligament was opened and a dead macerated fetus of 1.8 kg removed. Placenta was present below peritoneal reflection of broad ligament was opened and a dead macerated fetus of 1.8 kg removed. Placenta was present below the uterus and was removed with difficulty. Removal of placenta provoked bleeding from attachment site for which 3 units of blood were transfused. The incisions in uterus and broad ligament were sutured. Patient had uneventful post operative period and was discharged on the fifth post operative day.

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DISCUSSION

Pregnancy in the broad ligament is a retroperitoneal pregnancy. It may be a primary when the pregnancy is directly implanted on the broad ligament. It may be a secondary implantation with original implantation of the zygote having occurred elsewhere, such as fallopian tubes, ovaries and peritoneal surface. It is due to the trophoblastic penetration of the tubal pregnancy through the tubal serosa into the meso salpinx with secondary implantation between the layers of broad ligament or due to a uterine fistula between the endometrial cavity and the retro peritoneal space \(^7\). The risk factors include a history of secondary infertility, pelvic inflammatory disease, use of intrauterine devices, and use of progesterone only pills, a previous history of ectopic pregnancy, abdominal tuberculosis and endometriosis \(^1\). It is also common in in-vitro fertilization techniques \(^2,3\). The clinical presentation may be only a vaginal bleeding resembling threatened abortion because of decidual breakdown. Other presentations are a nonspecific lower abdominal pain during early gestation due to placental separation, associated with tearing of the broad ligament, and minor peritoneal hemorrhage. It may also present as acute abdomen due to gestational sac rupture and placental disruption resulting in hemoperitoneum. Massive hemorrhage is unlikely to occur because of the tamponading effect on the bleeding source in the broad ligament. Other physical findings include abdominal tenderness, thickening of the broad ligament, palpation of the fundus on the side opposite the pregnancy, abnormal fetal lie, and retracted cervix, bulging of the cul-de-sac and uterine soufflé audible over the uninvolved broad ligament \(^5\). Secondary abdominal pregnancy when strictly defined is pregnancy at any part of the abdomen other than ovaries, fallopian tubes and the broad ligament \(^6\). The placenta may be adherent to the pelvic side walls, uterus and bladder. The complications of abdominal pregnancy include bleeding, infection, anemia, disseminated intravascular coagulopathy, pulmonary embolism, fistulas between the amniotic sac and intestine, peritonitis and pelvic abscess, whereas the complications of pregnancy in the broad ligament include abdominal pain, rupture of the gestational sac with hemorrhage into the peritoneal cavity, vaginal bleeding, an abnormal lie, placental insufficiency and pseudo-labor followed by fetal death. The management of pregnancy in the broad ligament is surgical removal of the fetus and placenta. Ultrasound is the investigation of choice for diagnosis. If there is no intrauterine pregnancy on ultrasonography and the ectopic sac is beside the lower part of the empty uterus by Trans vaginal ultrasound, pregnancy in the broad ligament should be suspected.

REFERENCES

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