

BIOINFO Obstetrics and Gynecology

BIOINFO Obstetrics and Gynecology

Volume 1, Issue 1, 2011, pp-01-03

Available online at: <http://www.bioinfo.in/contents.php?id=146>

PRIMARY OMENTAL PREGNANCY PRESENTING AS HEMORRHAGIC SHOCK

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Received: October 18, 2011; Accepted: November 10, 20 11

Abstract- Omental pregnancy is a very rare form of ectopic pregnancy. A 32-year-old woman presented with severe abdominal pain, amenorrhea and shock. History of the patient revealed the use of intrauterine contraceptive device (CuT 380A). Trans-abdominal ultrasonography revealed a massive haemoperitoneum, but no gestational sac in the endometrial cavity and no tubal ring in the adnexa. Laparotomy was done in view of a pre-operative diagnosis of a suspected ruptured tubal pregnancy. In situ findings showed that, bilateral tubes and ovaries were normal and omentum was found to be wrapped around the gestational sac. Although, 16 cases of omental pregnancy (mostly secondary) were reported in the literature, herein we describe a primary omental pregnancy without an adnexal involvement.

Key word- pregnancy, Ectopic pregnancy, IUCD

Key message- Pregnancies can exist in unusual locations like omentum, in the form of primary omental pregnancy and hence can easily be missed. Even though good imaging techniques like trans-vaginal ultrasound and MRI can help diagnose such cases with reasonable accuracy but the exact location may still not be made out, like in our case.

So, during surgical exploration, if the uterus, bilateral fallopian tubes and bilateral ovaries are normal, then there is a possibility that omentum may be a site of implantation and hence should be thoroughly inspected.

Introduction

Abdominal pregnancy affects 1 in 10,000 deliveries. The maternal mortality rate in these cases is ~6%, and the clinical presentation is extremely variable. A review of literature showed that only a few cases of omental pregnancy have been reported to date, and most were secondary omental pregnancies.

The diagnosis of omental pregnancy is usually made at laparotomy. This case report reveals a primary omental pregnancy which is a subcategory of an abdominal ectopic pregnancy, diagnosed at laparotomy.

By presenting this case, we want to emphasize that, in a patient with clinical findings suggestive of ectopic pregnancy, if both adnexa are 'normal' during surgical exploration, then omentum may be the implantation site and it should be carefully examined.

Case report

A 32 year old G₃P₂L₂ presented in the casualty with complaints of 11/2 months of amenorrhea, pain in abdomen and giddiness since two days.

Her LMP was on 26/12/09, according to which she had eight weeks of amenorrhea. She had two previous full term

normal deliveries with last childbirth 10 years back. She had an IUCD insertion four years back which was in-situ.

Patient's husband had expired of sero-positive status.

On admission she was in grade 2 shock [1].

Her UPT was positive and USG was suggestive of a ruptured ectopic pregnancy with massive haemoperitoneum. A fetus of 10.6 wks with no cardiac activity was seen in the left adnexa with no intrauterine gestational sac.

An exploratory laparotomy was done along with simultaneous resuscitative measures.

Intraoperative findings showed normal and intact fallopian tubes and ovaries Fig (1) with massive haemoperitoneum of 3.5 litres. There was no evidence of rupture or fistula or oozing of blood from internal genital organs or adhesions between the omentum and upper genitalia. Clots were present in the left lumbar region with a mass of 12*15 cm covered by omentum with oozing blood vessels seen on the omental surface. To avoid leaving any trophoblastic tissue back in the omentum, a partial omentectomy was performed with care to remove all indurated parts. Gross dissection showed foetus, membranes and placenta, covered by omentum Fig (2). Histopathology showed Fig

Primary omental pregnancy presenting as hemorrhagic shock

(3), extensive villus formation and dense trophoblastic invasion deep into the omental tissues including blood vessels, which proved our case to be that of a primary omental pregnancy.

Patient's operative and postoperative periods were uneventful.

Abdominal pregnancy occurs in 1.4% of all ectopic pregnancies, and omental pregnancy is the least common form of abdominal pregnancies. The mortality rate for abdominal pregnancy is 7.7 times higher than non-abdominal cases [2].

Although there has been no consensus for the diagnosis of primary omental pregnancy, there are Studdiford's criteria [3]

- Normal bilateral fallopian tubes and ovaries with no recent or remote injury;
- Absence of any utero-peritoneal fistula;
- Presence of a pregnancy related exclusively to the peritoneal surface and early enough to eliminate the possibility of implantation following a primary nidation in the tube.

Clinical, ultrasonographic, histopathological and surgical findings must be combined to diagnose a case as a primary omental pregnancy. Recent usage of progesterone-only pills and IUD can be accepted as a risk factor [4]. In omental pregnancy mortality can be as high as 8% due to hemorrhagic shock [5].

Out of 16 cases of omental pregnancies in literature, 13 were treated with laparotomy and three cases were subjected to laparoscopic surgery [6]. During laparoscopy, a gynecologist must have high index of suspicion otherwise an omental pregnancy can easily be missed. Also, during laparoscopic approach, control of hemorrhage can be difficult because of trophoblastic invasion of omental vasculature. In primary omental pregnancy, histological evidence of revascularization or growth of trophoblasts into the supporting tissue must be found, in the absence of which all cases should be considered as secondary omental pregnancies [7].

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Fig.1- Normal uterus, normal bilateral fallopian tubes and ovaries intraoperatively.

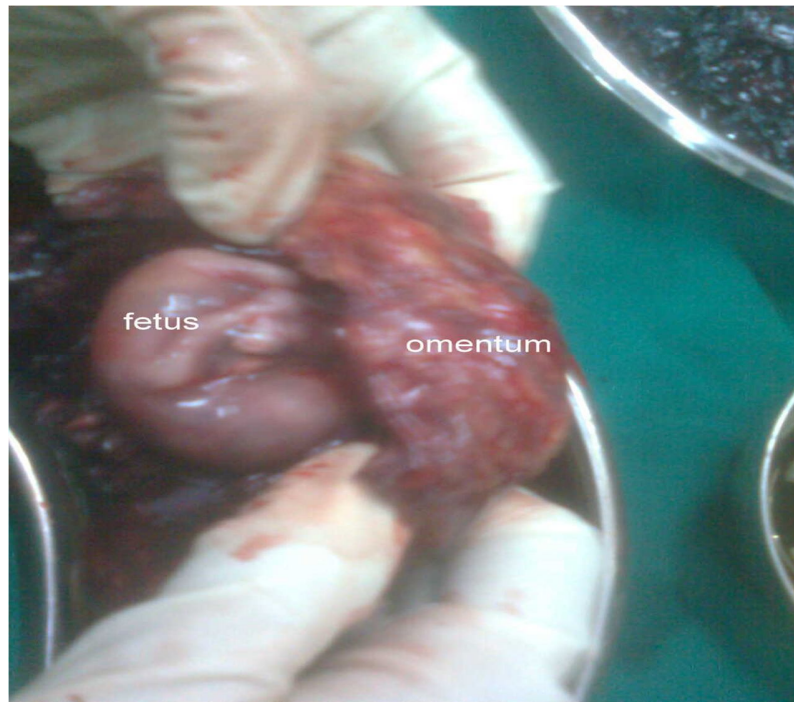


Fig. 2- Cut section showing foetus covered with omentum.

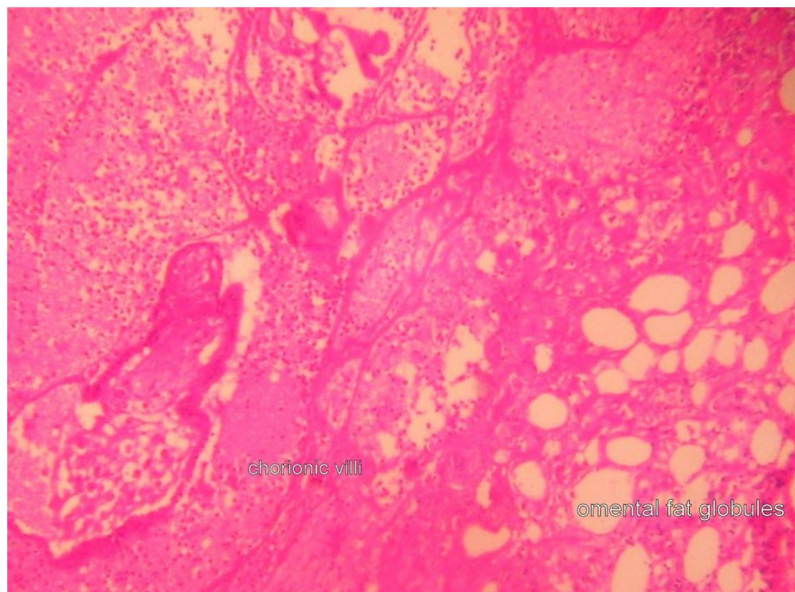


Fig.3 - HPE of omental pregnancy (stained by H&E) under light microscope with $\times 100$ magnification.