Case Report:
Two Cases of Primary Ectopic Ovarian Pregnancy

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Abstract:
Primary ovarian pregnancy is one of the rarest varieties of ectopic pregnancies. Patients frequently present with abdominal pain and menstrual irregularities. Intrauterine devices have evolved as probable risk factors. Preoperative diagnosis is challenging but transvaginal sonography has often been helpful. A diagnostic delay may lead to rupture, secondary implantation or operative difficulties. Therefore, awareness of this rare condition is important in reducing the associated risks. Here, we report two cases of primary ovarian pregnancies presenting with acute abdominal pain. Transabdominal ultrasonography failed to hint at ovarian pregnancy in one, while transvaginal sonography aided in the correct diagnosis of the other. Both cases were confirmed by histopathological examinations and were successfully managed by surgery.

Key Words: Primary; Ovarian; Pregnancy; Transvaginal Ultrasound

Introduction:
Ectopic Pregnancy is an important health problem and accounts for 10% of all maternal mortality.(1) Primary ovarian pregnancy is even rarer accounting for 0.15–3% of all ectopic gestations.(2) The diagnosis of an ovarian ectopic pregnancy is seldom made before surgery,(3) Ultrasound, especially transvaginal scanning (TVS) has proved to be an invaluable tool in the diagnosis of this condition.(4) We had two cases of primary ovarian pregnancies out of 280 ectopic pregnancies during 2005-2008, incidence being 0.71%.

Case Reports:
Case 1:
A 24 years old female, with 45 days' amenorrhoea, complained of severe pain of sudden onset, in the right iliac fossa and suprapubic region for 2 days. The patient, a third gravida, had a previous history of two full term normal vaginal pregnancies. The last child had been born two and a half years earlier and thereafter, she was using intrauterine device.

On per vaginum examination, the cervix and vagina were healthy and the uterus was enlarged to 7 weeks' size. All her fornices as well as the cervical movements were tender. Her routine hematological and biochemical tests were within normal limits except for mild leucocytosis with neutrophilia. Keep-
of ovarian pregnancy differs and when asymptomatic may be
missed until late gestation.(8) The diagnosis is seldom made
before surgery (3). Ultrasound, especially TVS has proved to be
an invaluable tool in the diagnosis, as in Case 2, where hyper-
echoic appearance of the trophoblast surrounded by thickened
hypoechoic ovarian tissue is the only indication of an ovarian
ectopic gestation.(4) Even then, it can be mistaken for a hem-
orrhagic corpus luteum or ovarian cyst. Ovarian pregnancies usu-
ally terminate in rupture during the first trimester in 91.0%
cases, 5.3% in second trimester and 3.7% in third trimester.(1) Both
of our cases presented in 1st trimester. Only one case has
been reported in literature where ovarian pregnancy has pro-
gressed to full term delivery.(9)

The diagnosis is difficult and is a continuous challenge to the
gynecologist and surgical practitioners. Ovarian rupture de-
strous the integrity of the organ and occasionally, that of the fal-
lipopian tube, preventing the recognition of such a gestation.
Ovarian pregnancy can be treated conservatively with single
dose Methotrexate. However, the preferred mode of treatment
is oophorectomy by either laparotomy or laparoscopy.(10) In
the past, ovarian pregnancy had been treated by ipsilateral oo-
phorectomy, but the trend has since shifted toward conservative
surgery such as cystectomy or wedge resection performed at
either laparotomy or laparoscopy. Currently, laparoscopic sur-
gery is the treatment of choice.(7) Fertility after ovarian preg-
nancy has been reported to be unmodified.(10)

In the present case reports, both the cases presented with lower
abdominal pain of acute onset and a provisional diagnosis of
ectopic pregnancy, acute PID or a tubo-ovarian mass was made.
In one of the cases, TVS showed a left ovarian echogenic mass
and free fluid in pouch of Douglas; and thus, aided in the dia-
gnosis of an ovarian pregnancy. Both were treated by operative
methods - Case 1 underwent laparotomy and Case 2, laparo-
scopy. Histopathological examination confirmed the diagnosis
of an ovarian pregnancy in each case. Regarding fertility after
ovarian pregnancy, the present cases fail to shed any light; as
Case 1 underwent permanent sterilization and Case 2 was, un-
fortunately lost to follow up.

Although ovarian pregnancy is a rare event, awareness of this
condition is important in reducing the associated morbidity and
mortality. Hence, it can be concluded that ovarian ectopic
pregnancy should be entertained as one of the important
differential diagnoses in a female of reproductive age group
presenting with acute abdomen.

References: