Proceedings S.Z.P.G.M.I vol: 14(2) 2000, pp. 109-110.

Ovarian Pregnancy: A Case Report

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SUMMARY

Primary ovarian pregnancy represents 3% of all ectopic gestations with an incidence of 1:7000 to 1:40,000 deliveries. It is associated with patients of high fecundity and in women having an IUCD. Preoperative diagnosis is often difficult. Conservative surgical treatment is feasible and important in preserving future fertility. Here we report a case of primary ovarian pregnancy in a 25 years old G3P2+0 with focus on early diagnosis and timely intervention. Ectopic pregnancy was suspected on the basis of amenorrhoea, irregular vaginal bleeding and pain lower abdomen along with raised serum ß-hCG level and no gestational sac in uterus on USG. Laparoscopy was done. Right primary ovarian ectopic was seen. Spiegelberg criteria was met. Conservative surgical ovarian resection with reconstruction of remaining ovarian tissue was done. Postoperative period was uneventful. Patient conceived an intrauterine pregnancy one year later.

INTRODUCTION

Primary ovarian pregnancy is one of the rarest type of extrauterine pregnancy. Since the first recorded instance in 1682, a number of patient reports have appeared. Combining statistics, the incidence of true ovarian pregnancy appears to be in the range of 1-3% of all ectopic gestations, with a frequency of one in 7000 to one in 40,000 deliveries[1]. Advanced ovarian pregnancy[2]. and term ovarian pregnancies are even more rare[3].

In 1878, Spiegelberg outlined four criteria to define the rare ovarian ectopic and distinguish it from more common tubal pregnancy[4]. The fallopian tubes, including fimberia ovarica, must be intact and separate from the ovary; the gestation must occupy the normal position of the ovary and be connected to the uterus by the utero-ovarian ligament and there must be ovarian tissue in the wall of the gestational sac.

Risk factors do not seem to be shared with tubal ectopic pregnancy. Pelvic infection (particularly chylamydia trachomatis) has been linked with tubal ectopic[5]. While no association with PID has been found in case of ovarian pregnancy. The role of IUCD in the pathogenesis of this challenging condition is increasing[6].

Patient presents usually with nonspecific signs and symptoms of ectopic pregnancy with haemoperitoneum that requires emergency surgery. Initial diagnosis being made intraoperatively and final diagnosis by histopathology.

Here we report a case of intact primary ovarian pregnancy to illustrate the fact that high index of clinical suspicion along with quantitative serum ß-hCG levels, empty uterus on USG and laparoscopy with double puncture technique are the ways to diagnose this challenging condition before it ruptures thus avoiding catastrophic intraperitoneal haemorrhage and laparotomy in an emergency situation and preservation of future fertility.

CASE REPORT

A 25 years old G3P2 was admitted on 3-3-2000 with complaints of lower abdominal pain and irregular vaginal bleeding following amenorrhoea of 7 weeks. Her last child born was 2 years ago. Normal menstruation was resumed. She was using injection Norgest for contraception. Her LMP was on 27-12-1999. She had amenorrhoea of 7 weeks duration after which she started having irregular vaginal bleeding followed by pain lower abdomen.

Her vital signs were stable. On abdominal examination there was suprapubic tenderness. Vaginal examination revealed normal sized anteverted uterus with cervical excitation and tenderness in right fornix. Emergency abdominal USG showed normal pelvic findings. Serum ß-hCG was 1750 IU/ml. Laparoscopy with double puncture technique was performed on 6-3-2000. Laparoscopic findings were of normal uterus, both tubes and left ovary. Right ovary was enlarged with bluish looking unruptured ovarian mass measuring 2x3 cm on its posterior surface giving strong clue to the diagnosis of primary ovarian pregnancy. There was no haemoperitoneum, pelvic adhesions or endometriosis. Minilaparotomy was done. Ovarian tissue containing conceptus was resected. Remaining ovarian tissue was reconstructed. Blood transfusion was not required. Postoperative period was uneventful. Operative specimen on histopathological examination showed placental villi, blood clot and ovarian tissue in the wall of gestational sac. During follow-up visits she did not report any significant complaint. One year later she became pregnant and intact intrauterine pregnancy of 9 weeks duration was confirmed on USG on 9-3-2001.

DISCUSSION

Ovarian pregnancy is so rare an entity that estimates of its incidence vary from 1 in 7000-40,000 deliveries[1].

The aetiology is unknown. The condition is said to occur more commonly in fertile women[7]. as in this case. The traditional risk factor for tubal gestation particularly PID or previous pelvic surgery may not apply, as in this case the pelvis was absolutely free of adhesions.

The association of IUCD with ovarian pregnancy is well known[6]. Our patient was using injectable progesterone for contraception. More case studies are needed to define the role of progesterone in the pathogenesis of this challenging condition.

The diagnostic evaluation of presumed ovarian pregnancy is similar to that of tubal ectopic. Quantitative serum ß-hCG measurement, pelvic USG particularly with vaginal probe showing "empty" uterus in a patients presenting with amenorrhoea, vaginal spotting and lower abdominal pain will readily lead toward the diagnosis of ectopic gestation. Diagnostic laparoscopy with double puncture technique be required to find the site of ectopic gestation. Conservative surgical ovarian resection with reconstruction of remaining ovarian tissue was done by laparotomy. The Spiegelberg criteria was fulfilled in this case[4].

With the advancement in USG skill it is now possible to diagnose ovarian pregnancy preoperative. Early diagnosis is important to avoid rupture of the ovary, haemoperitoneum, circulatory collapse and need for blood transfusion with its attendant hazards.

Once diagnosed treatment is surgical. Laparotomy is usually indicated. Intraoperatively patient should be evaluated for the most conservative fertility sparing procedure possible. Ovarian wedge resection to remove products of conception is the treatment of choice. Hysterectomy is justified when the ovary cannot be removed alone, when there is other pathology or for sterilization[1].

Prognosis is good. There is no repeat ovarian pregnancy. Subsequent fertility remains unmodified[8]. Our patient conceived an intact intrauterine pregnancy one year later and is now under regular antenatal checkup.

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