OVARIAN PREGNANCY FOLLOWED BY FULL TERM NORMAL PREGNANCY

(Case Report)

by

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Introduction

Ovarian pregnancy is rare. Recently there has been a slight increase in the incidence of ectopic pregnancies, especially in women who use I.U.D. for contraception. The following case is reported for its rarity.

Case Report:

A 26 year old patient married for 2 years reported to the emergency ward with a history of 2 months amenorrhoea followed by acute attack of lower abdominal pain. The pain was mainly in the right iliac fossa and started one day prior to the day of admission associated with the feeling of fainting. The pain subsided by itself but once again started one hour prior to admission. There was no other significant history of vomiting, difficulty in micturition or defaecation.

On examination the patient appeared to be slightly anaemic with a temperature of 99°F, pulse rate of 120/minute and B.P. 100/60 mm of Hg.

Abdominal examination revealed acute tenderness with more pain in the right iliac fossa, but patient did not allow proper examination and there was no definite mass made out.

Pelvic examination revealed a firm cervix, movement of which was slightly painful. Uterus was in midposition, just bulky with tenderness in both the fornices. There was vague fullness in the right fornix but no definite mass was made out.

A provisional diagnosis of ectopic pregnancy was made, but appendicitis could not be ruled out. Hence posterior colpocentesis was done which revealed fresh blood. Appendicitis was thus excluded, and patient was posted for laparotomy.

Operative findings:

There was haemoperitoneum with 500-600 ml. of fresh blood and clots. The right ovary was the seat of haemorrhage with a haemorrhagic cyst of 2 cms. in diameter. The rest of the ovary appeared normal. The cyst in the ovary could be easily enucleated. The uterus, both tubes and left ovary were found to be normal. The abdomen was cleared off the blood and closed in layers.

The histopathology report of the haemorrhagic cyst revealed products of conception indicating ovarian pregnancy.

Post operative period was uneventful. Patient was discharged on 10th day with an advise to postpone further pregnancy for few months.

She became pregnant within 5 months after the laparotomy, and delivered a normal baby at full term by caesarean section for contracted pelvis. The tubes and ovaries were inspected at the time of caesarean section and there was no evidence of old ectopic or scarring of the tissues. All the structures appeared normal.

Discussion

Ovarian pregnancy is rare and the reported incidence vary from 1 in 34,506 pregnancies (Bobraw, 1956), to 0.4%-0.7% (Vulgaris, 1974). Recently there

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seems to be a rise in ovarian pregnancies due to various methods of contraceptions and especially attributed to I.U.D. Statistical studies indicate a higher incidence of ovarian pregnancy in women with intrauterine devices than among women in general (Lehfeldt *et al*, 1970). Lehfeldt *et al*, reported the ratio of 1 in 9 ectopic pregnancies among I.U.D. wearers (1970). This is much higher rate than in the general population of 1 in 200 ectopic pregnancies. According to Lehfeldt *et al*, the intrauterine devices reduce uterine implantation by about 99.5% and tubal implantation by 95% but the incidence of ovarian pregnancy is not affected at all.

The earliest suggestion of the possibility of an ovarian pregnancy was made by Merceries in 1614 (Ismail, M. 1950).

The first apparently authentic case was described in 1897 by Kawer (Mayer, W., 1919). Later in 1899 Van Tussenbrock described case of intrafollicular ovarian pregnancy with accurate clinical and histologic study. Since then many authors have described ovarian pregnancy but considerable doubts were raised as to whether these were true ovarian pregnancies or merely secondary implantation in the ovary of a ruptured tubal or abdominal pregnancy. The main reason for believing the latter is that fertilised ovum in the human female was thought to be phylogenetic and begins its development only in tissue derived from the mullerian tract. This theory was advanced by Webster in 1904. (Webster J. C., 1904) and Sutton in 1924. But this theory is generally rejected now although MeKenzie (1943), Curtis (1941) and others reported cases of ovarian pregnancy associated with the presence of endometrial tissue. Haeuber A. (1928) *et al* (1932), Wittenberg and Ries (1948) reported cases in which there was no detectable endometrial tissue.

Implantation is most often intrafollicular implying that the fertilised ovum goes on to implant in the follicle or corpus luteum. This is what has occurred in our case as there was a small haemorrhagic cyst of the right ovary which had products of conception causing severe haemorrhage into the peritoneal cavity. Implantation of the ovum in areas of endometriosis on the ovary might seem to be a more common mechanism but however proof of this requires further investigation (Vulgaris, 1974). Once again in our case there was no evidence of endometriosis at the time of laparotomy or later at caesarean section.

The criteria for the diagnosis of ovarian pregnancy which inspite of later modifications still provide a basic guideline set forth in 1879 by Spiegelberg. Namely:

(1) The tube on the affected side must be normal.

(2) The gestational sac must occupy the normal position of the ovary.

(3) The sac must be connected to the uterus by the ovarian ligament.

(4) Unquestionable ovarian tissue must be demonstrated in the wall of the sac.

In the case reported, there is no controversy about the site of pregnancy as there was a small cyst on the right ovary with both the tubes and uterus being normal. The cyst had a small bleeding point filling the peritoneal cavity with blood. The cyst could be enucleated easily which was thought to be corpus luteum with haemorrhage. But the histological study revealed products of conception. This seems to be a very early case of ovarian pregnancy though the ovary has the capacity to distend and accommodate a full term fetus (Mofid *et al*, 1976).

The question of bleeding without rup-

ture is an interesting one. Norris (1909) has also reported a case with considerable free blood in the peritoneal cavity with an unruptured gestation sac. In this case the cyst was 2 cm. in diameter unruptured but there was free intraperitoneal bleeding of 500-600 ml. of blood.

Summary

A rare case of early ovarian pregnancy occurring in a young primigravida with no other complication has been reported. Patient had signs and symptoms of acute ectopic pregnancy, though the period of gestation was short and the pregnancy occurred in the ovary. Acute abdomen followed by laparotomy caused no untoward sequelae and the patient conceived within few months. There was no evidence of tubal damage or ovarian abnormality noticed at the time of caesarean section during the next pregnancy.

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