PRIMARY OVARIAN PREGNANCY

(A Case Report)

by

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Primary ovarian pregnancy is an extremely unusual form of ectopic gestation, occuring in 1 in 25,000 to 52,833 pregnancies. The first authentic case of ovarian pregnancy was reported as early as 1614 by Mercerdus. In 1878 spiegelberg laid down definite criteria which are essential for the diagnosis of this condition and since then the entity came to be fully accepted. The criteria cited by him were

1. The tube must be intact and have no organic connection with gestation Sac.
2. The gestation sac definitely must occupy the normal anatomic position of the ovary.
3. The gestation sac must be connected with the uterus by the utero-ovarian ligament, and
4. Unquestionable ovarian tissue must be demonstrated in the walls of the sac.

The figures given by different authors vary from 0.22 to 5.12% of all ectopic pregnancies.

It has been suggested that primary ovarian pregnancy may not be as rare as indicated by the infrequency of diagnosis. Gerin-Lajoie (1951) states that the great majority of ovarian pregnancies rupture at such an early stage that it is often impossible to recognise embryonic elements by sight or in representative microscopic sections. Barrow and Winkelstein (1956) consider that ovarian implantation is not so rare, as the majority of cases are either overlooked or unreported. Many of the cases which appear to be tubal pregnancies occurring in the close vicinity of the ovary, on careful naked eye and histological studies may prove to be primary ovarian pregnancies.

Great majority of ovarian pregnancies rupture in the first trimester. Advanced ovarian pregnancies have been reported in India by Upadhyay (1955), Rakshit (1964) and Vaish (1965). Modavi (1963) reported a case of twin pregnancy of approximately 12 weeks' duration.

Case Report

Mrs. I., aged 30 years, was admitted on 12-8-71 with complaint of bleeding per vaginam 15 days, which started on due date of menstruation and pain in the abdomen 15 days. Her previous cycles were regular. She got married 20 years ago and was sterile. Salpingectomy was done 7 years ago for right sided ectopic pregnancy.

Examination on admission revealed pulse rate 100 beats/mt, slight pallor, normal B.P. and slight tenderness in lower abdomen.

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Vaginal examination showed cervix pointing forwards, normal sized retroverted uterus and a tender mass of about 3″ x 3″ size palpable through left and posterior fornix.

Her haemoglobin was 50%, Total W.B.C. 8950/cmm. Nothing abnormal was found on routine urine examination. Posterior colpocentesis showed old blood in the peritoneal cavity.

On laparotomy small blood clots were found adherent to the mass on left side, which was occupying the position of the ovary. It was of 3″ x 3″ size. It was also adherent to the posterior surface of the uterus. During separation of adhesions the mass ruptured and substance looking like an old blood clot came out of it (which on cutting showed a sac in it). Now only the shell of tissue was remaining, which was attached to the lateral pelvic wall by the infundibulopelvic ligament on one side and on other side it was connected to the uterus by the ovarian ligament. The left tube was adherent to the mass by few flimsy adhesions. It was very friable. Right tube was absent. Left sided salpingectomy along with the removal of remaining shell of tissue, was done. Her immediate post-operative period was uneventful. The abdominal wound healing was delayed because of sepsis.

Pathological Examination

Gross: An ovary and other irregular multiple pieces of tissue. Ovary was 4 cm. in diameter greyish brown in colour and surface was dark brown in colour.

Microscopic: The chorionic villi were found to be present in the ovarian tissue.

Discussion

The case reported above fulfills all the criteria cited by Spiegelberg (1878). Only one case is recorded in the last 13½ years in our institution, giving an incidence of 1:74499 pregnancies. Among the ectopic pregnancies the incidence of ovarian pregnancy was found to be 1:192.

The aetiology of primary ovarian pregnancy remains obscure although pre-existing infection has been suggested as a predisposing factor. Rarely endometriosis has been laid as a possible predisposing factor.

A mechanical aetiology of ovarian implatation of one of the following descriptions is favoured by most authors.

1. Some interference with the expulsion of ovum from the follicle at the time of ovulation.
2. Cortical implantation following fertilization in the peritoneal cavity or tube.
3. Interstitial implantation due to extrusion of the ovum into ovarian stroma and subsequent fertilization by sperm entering the ovary via the ruptured follicle.

Treatment has almost universally consisted of at least the removal of the affected ovary and often of the corresponding fallopian tube. Dougherty and Diddle (1969) recently presented two cases of intrafollicular ovarian pregnancy managed conservatively, with resection of the products of conception and conservation of most of the involved ovaries. In view of rapid progress in the area of transplantation surgery, it might be envisioned in the not too distant future that the pregnancy might also be conserved with transplantation to a more favourable site in the pelvis.

Summary

One case of primary ovarian pregnancy has been reported. The incidence, probable aetiology, and treatment of ovarian pregnancy are discussed.

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