PRIMARY OVARIAN PREGNANCY

(Case Report and Review of Literature)

by

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Primary ovarian pregnancy is a rare condition encountered in 25,000 to 40,000 pregnancies and it forms only 0.7 to 1.7 per cent of all ectopic gestations. A case is not accepted as authentic unless it fulfils the criteria laid down by Spiegelberg (1878) viz. (1) The follopian tube, including the fimbrial end must be intact and separate from the ovary. (2) The gestational sac must occupy the normal position of the ovary. (3) It must be connected to the uterus by utero-ovarian ligament. (4) The wall of gestational sac must show definite ovarian tissue. In the world literature over 250 cases of primary ovarian pregnancy have been reported (Pratt-Thomas *et al,* 1974) since the entity was described by Saint Maurice in 1682.

Boronow *et al* (1965) found 62 well authenticated cases of ovarian pregnancy in English literature from Jan. 1950 to Jan. 1963 and they added 3 cases of their own. They estimated that there had been 85 such cases before 1950 making a total of 150 in English literature. Pratt Thomas *et al* (1974) were able to find 57 additional cases since Boronow's report, bringing the total to over 200 in English literature. They further discovered 42 cases of ovarian pregnancy in the international literature from 1963 onwards, and reported 10 cases of their own, thus bringing the total to over 250.

In Indian literature, isolated case reports or small series of primary ovarian pregnancies have been reported. Rastogi *et al,* (1976) encountered 22 cases in Indian literature and added one case of their own. The following case that we encountered at Medical College Hospital, Rohtak is reported.

Case Report: Patient K. 28 years old PO + O was admitted to gynaecological ward of Medical College Hospital, Rohtak on 11th May, 1977 with pain in lower abdomen for 3 months. She had been having episodes of severe pain off and on, but mild pain was almost continuous without any other symptoms and there were no aggravating or relieving factors. She also had high grade fever off and on associated with chills and rigors on alternate days which used to come down with sweating. There was nothing relevant in her past history.

Menstrual History—Menarche was as the age of 15. Cycle 5/30 days, regular. Last menstrual period was on 1st May, 1977.

Obstetric History: Married 12 years PO + O. Physical examination revealed a thin-built

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patient with mild anaemia. Pulse 80/min. B.P. 130/84 mm Hg. Temp. 98.4°F. Systemic examination showed nil abnormal. On abdominal examination, there was a firm mass 6" x 4" in right iliac fossa, smooth surface, well defined margins not tender, not mobile.

On Speculum examination, Cervix and Vagina —Normal. No bleeding.

On vaginal examination, os was closed. Ut. AV normal size; mass felt in right iliac fossa could be just tipped through right fornix. Left fornix free. Per rectum : NAD.

Investigations

Hb. 8 G% on admission (11.5.77). 17.6.77—9 G%. TLC 11000/cmm. DLC P70% L20% M0% E10% B0%.

Blood urea: 15 mg. Blood sugar: 50 mgm% by auto analyser (N.R.—50-85 mgm%) Blood group B Rh +ve. Vaginal swab culture: Staph. albus coagulase +ve. Urine: Alb. Nil, sugar Nil. M/E: Many pus cells+. Urine culture: E. coli and pseudomonas sensitive to furadantin and Nalidixic acid.

X-ray chest: N.A.D.

Endometrial biopsy (3.6.77): Early secretory phase.

A provisional diagnosis of tubo-ovarian cyst was made and patient was put on injection streptopenicillin, hematinics and general therapy. Her mass did seem to have become a little mobile but no change in size took place. Laparotomy was done on 11.6.77. Abdomen was opened by midline infraumbilical incision. Peritoneum was found to be adherent to the mass. Left tube and ovary were normal. Right ovary was replaced by a mass which was 10 x 6½ cm. in size and adherent to the back of the uterus. The right tube was stretched over the mass and the gut was adherent to the mass. After separating the adhesions (R) salpingo-oophorectomy was done alongwith plication of round ligaments. Left tube was found to be patent. Abdomen was closed. Patient had a smooth convalescence and uneventful recovery and was discharged on 24.6.77 in good condition.

Specimen: Gestational sac measuring 10.5 x 9 x 6 cm. On cutting open showed 9 cm long foetus attached to the placenta. Internal organs of foetus were autolysed.

On histopathological examination ovarian tissue was found in the gestation sac.

Comment

Incidence of primary ovarian pregnancy reported by different authors varies considerably. Dowling *et al* (1960) found only 1 ovarian pregnancy among 59740 pregnancies, whereas Boronow and Winkelstein (1965) and Sakuntla Devi (1967) observed 4 ovarian pregnancies among 36914 and 31512 pregnancies respectively giving an incidence of one in 9229 and 7878 pregnancies respectively. Considerable variation from 0.77% (Bobrow *et al* 1956) to 2.71% (Boronow *et al*, 1965) is also observed in the reported frequency of occurrence of ovarian pregnancy amongst all types of ectopic gestation.

Diagnosis of ovarian pregnancy can seldom be made clinically. Even when made at laparotomy, the histopathological examination of sac has got to be done so that Spiegelberg's fourth criteria is fulfilled. Majority of the cases occur in 3rd and 4th decades and our patient was 28 years old. Period of infertility prior to ectopic gestation holds true for ovarian pregnancy and it was present in our patient. History of amennorhoea is absent in higher percentage of ovarian pregnancies (50%) and our patient also had no amenorrhoea. Most of the pregnancies terminate in first trimester—75% (Baden and Heins, 1952) to 91% (Boronow *et al*, 1965). In our case period of gestation was 3 months as determined from 9 cm foetus in the sac. Advanced ovarian pregnancies, some of them even going upto term, however, have been reported by a number of authors. Ovarian pregnancy has been reported in many unusual situations. Thus Lyle and Christianson (1955) reported ovarian pregnancy after 11 years of vaginal hysterectomy with an asymptomatic vault fistula. Modovi (1963) and Green

and West (1963) reported primary ovarian molar pregnancy associated with eclampsia.

Treatment of ovarian pregnancy is laparotomy. Conservatism of affected ovary is advocated by Pratt-Thomas *et al* (1974). However, in the present case, salpingo-oophorectomy was done as the ovarian mass was bound down by adhesions and diagnosis of ovarian pregnancy had been made only after cutting open the ovary when the foetus was found.

Summary

A case of primary ovarian pregnancy is reported and literature is reviewed.

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