CO-EXISTENT INTRAUTERINE AND EXTRAUTERINE PREGNANCY

by

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The heterotopic pregnancy has long attracted the attention of the medical profession. It is fairly certain that most of these cases are twin pregnancies which originate from a single coitus having separate sites of implantation.

Simultaneous pregnancies are sometimes termed as "combined" or "compound" pregnancies. But there is also difference of opinion regarding the nomenclature of compound pregnancy cases.

The diagnosis of combined pregnancy is not easy. The death rate of intrauterine twin is about 50% (Fleisher and Seamen, 1961 and Brody and Stevens, 1963).

On review of literature, it has been found that Duverney in 1708 was probably the first to report a case of coexistent intra and extrauterine pregnancy. In that case, the patient died and the condition was diagnosed at autopsy. Upto 1970, more than 500 cases of simultaneous pregnancies have been reported in the world literature. Recently, combined intrauterine and extrauterine pregnancy (secondary abdominal) has been reported by Gayatry *et al* (1971) in which the extrauterine foetus was found mummified at laparotomy. In the present series, two cases of heterotopic pregnancies have been noted out of a total of 150 cases of ectopic pregnancies (1.33%) during the years 1967 to 1970, in the Department of Obstetrics & Gynaecology, Nilratan Sircar Medical College and Hospitals. The total intrauterine deliveries during this period was 20,765. The frequency of this condition in relation to intrauterine deliveries has been estimated to be 1: 10, 382.

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Case I

Smt. B., aged 26 years para 3+0 (last child birth being 11 months, breast fed) was admitted with history of 11 weeks' amenorrhoea and acute colicky type of lower abdominal pain with fainting attack 9 days ago. She had no vaginal bleeding but was running a temperature (99.4 of) for 3 days, and had dyschezia for last 2 days. There was no history of puerperal fever or any other serious illness in the past.

General Examination: Her general condition was fair, pallor present, pulse 104/m, respirations 22/m, blood pressure 120/70 mm/Hg. Temp—100°F.

Abdominal Examination: Rigidity was present with marked tenderness and indefinite fullness of lower abdomen.

Vaginal Examination: Uterus was found to be incorporated with the mass in pouch of Douglas, retroverted, enlarged to 8-10 weeks' pregnancy size; cervix was soft and tender. The tender mass in pouch of Douglas was found extending on right side. No vaginal bleeding was noted.

A provisional diagnosis of tubal rupture and pelvic haematocele was made. At laparotomy, uterus was found to be definitely bulky, 8-10 weeks' pregnancy size with healthy tube and ovary on the left side. Right tube showed ampullary rupture with a foetus of 3 months size (still living) coming out of the ruptured site with the head still inside the tubal lumen (fig. 1). Right sided salpingo-oophorectomy was done.

Post operative period showed pyrexia for 3 days. Patient was discharged from the hospital on the 9th post-operative day.

On follow up, after about 6 weeks, the patient complained of intermittent vaginal bleeding for about 20 days. On examination, uterus was found enlarged corresponding to 18 weeks pregnancy (more than period of amenorrhoea) with positive external ballottment. On vaginal examination, bleeding was detected coming out from the cervical canal.

The patient was admitted as a case of threatened abortion. After about two weeks, the uterus was enlarged to 24 weeks' pregnancy with foetal parts and foetal movements. A provisional diagnosis of multiple pregnancy was made. Pregnancy test (Male Toad Test) was found to be positive at 4000 i.u./litre of urine. The vaginal bleeding stopped by itself and the patient was discharged from the hospital. Again after one month she had to be admitted as a case of inevitable abortion and subsequently she aborted two male foetuses (of 22 weeks' gestation) on the same evening (fig. 2). The placenta was retained and was removed, manually. She had one blood transfusion, 300 cc (Gr. O Rh +ve) and Inj. Ergometrine maleate 0.5 mg. Im + I.V. were given. The patient was discharged on the 5th post-confinement day.

Histological section of the tube taken from the area little away from the site of rupture showed adherent plicae with round cell infiltration around the blood vessels with marked oedema of muscle coat.

Case 2.

Smt. T. aged 25 years, para 0 + 5 i.e. history of five successive abortions, last one being one year ago, was admitted on 20-2-1970 for severe lower abdominal pain for an hour preceded by dull aches for 12 days. There was a history of fainting attack and vomiting associated with abdominal colic. Vaginal bleeding was present for 6 days following a period of amenorrhoea for 9 weeks. In this case, the suggestive history of post-abortal fever and being treated with antibiotic was also present.

General Examination: The general condition of the patient was poor and signs of shock with severe pallor (Hb% = 5 gm%) was present. Pulse was 140/m. blood pressure 90/55 mm of Hg.

On Abdominal Examination: There was no rigidity but lower abdomen was extremely tender.

On Vaginal Examination: One mass was felt through the pouch of Douglas extending upto the right fornix. The mass was non-pulsatile, with an indefinite outline and was extremely tender. Uterus was found to be slightly bulky (about 6-8 weeks pregnancy), anteverted with a soft, eroded and tender cervix. Bleeding was seen coming through the os.

Diagnostic needling of the pouch of Douglas was done with a provisional diagnosis of acute tubal rupture (right side) with pelvic haematocele. Fresh Blood was drawn on needling.

Laparotomy Findings: Right tubal (ampullary) abortion associated with haemoperitoneum and a big pelvic haematocele was found (fig. 3). Safe sided ovary showed cystic changes and adhesions with the tube. Opposite tube showed a small hydrosalpinx at its fimbrial end. Opposite ovary was healthy. The uterus was soft and bulky. (6-9 weeks). Right sided salpingo-oophorectomy with left sided partial salpingectomy were performed.

Post operative period was uneventful excepting slight pyrexia (99-100°F) for the first two days. On the morning of third post-operative day, the patient passed a fleshy mass per vaginam which was thought to be a "decidual cast". The patient was discharged from the hospital on 10th day after operation.

Histo-pathological examination of the right tube showed adhesions of plicae and focal collection of round cells suggestive of chronic salpingitis (fig. 4). Left tube—plicae are flattened with flattened epithelium suggestive of hydrosalpinx. A follicular cyst of the right ovary was present. Fleshy mass passed per vaginam showed decidual cells with scattered chorionic villi with areas of haemorrhage suggestive of intrauterine pregnancy (fig. 5).

Discussion

Many theories have been advanced to explain the aetiology of combined pregnancies. It is assumed that this occurs with fertilisation of two ova. Any condi-

tion which impedes the progress of one of fertilized ova through the tube, predisposes to hetertopic pregnancy. Most frequently the second pregnancy is located in the tube (Bisca & Felder, 1960). The obstruction to the passage of the second ovum is due to previous salpingitis.

Simultaneous pregnancies have been differently grouped by various authors. Gemmell and Murray (1933) divided them into four clinical groups.

(1) Cases in which the condition was diagnosed during a postmortem examination.

(2) Cases diagnosed in the second half of pregnancy.

(a) after abortion of an uterine ovum.

(b) before abortion of an uterine ovum.

From a clinician's stand point, Novak's classification is perhaps more practical, i.e. Group-I:—Patients with a history suggesting ectopic pregnancy. Group-II:—Patients in whom the intrauterine pregnancy dominates the clinical picture.

Group-III:—Patients in whom both pregnancies go to term.

To the above-noted clinical groupisgs, Mitra (1940) added another group of cases in which the history suggests acuteness of both intra and extrauterine pregnancies at the same time.

In the present series, both cases come under the first group of Novak. One case was diagnosed in the post-operative period following histopathological examination of a fleshy mass passed per vaginam and which was thought to be a "decidual cast" on clinical examination.

The diagnosis of heterotopic pregnancy is very difficult. Mitra (1940) stated "the importance of this complication lies in the fact that sometimes one condition is overshadowed by the other, and very often the true diagnosis is made only on the operation table". The same thing happened in the first case—a case of intrauterine twin pregnancy along with right sided tubal rupture.

Sometimes, the difference in the size of two foetuses (in the uterus and in the tube) if it can be measured, arouses the suspicion of superfoetation. According to some authors (Bisca & Felder, 1960) this difference in the growth of foetus in the ectopic location in spite of both ova being fertilized at the same time and gestation for both pregnancies being the same, is only due to less efficient placental circulation within the tube. There are no recorded proved cases of superfoetation in the literature.

From the prognostic point of view of the heterotopic pregnancy, it has been noted that the majority of cases of intrauterine gestation resulted in abortions. But some authors e.g., Winer *et al* (1959) and Nandi (1953) reported the cases where both intra and extrauterine pregnancies went to term and both babies were extracted alive and well.

In the present series, both cases ended in abortions, one at 22nd week of gestation and other on 70th day of pregnancy. The first case was a case of intrauterine twin pregnancy along with right tubal rupture—a case of triples. The literature shows no similar case up-to-date.

In these cases of combined pregnancy where salpingectomy or salpingo-oophorectomy is performed early for the tubal pregnancy, post-operative care should be directed towards maintaining the intrauterine pregnancy. In cases where both foetuses reach viability, the intrauterine pregnancy may be allowed to terminate first followed by laparotomy for the abdominal pregnancy (Greenhill, 1959).

But, in the opinion of the writer, it is justified in doing a laparotomy to extract both the foetuses from their intra and

extrauterine location if the pregnancy has attained viability. There are some cases, however, in which intrauterine pregnancy has to be sacrificed along with the uterus, especially in cases with multiple and gross adhesions with the adjoining viscera or associated with fibroids (Mitra, 1940).

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See Figs. on Art Paper II-III