

COMBINED INTRA AND EXTRA-UTERINE PREGNANCY*

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The incidence of ectopic pregnancy varies from 1 in every 303 pregnancies (Schuman, 1921) to less than 1 in every 100 pregnancies (Crawford and Hutchinson, 1954; Kobak, *et al* 1955). The incidence of twin pregnancy is reported to be 1 in 80 pregnancies. But, it is extremely unusual to get combined intra and extra-uterine pregnancy, the reported incidence of which is 1 in 30,000 pregnancies (Devoe and Pratt, 1948).

Duverney, in 1708 (as quoted by Barnes *et al* in 1968) described the first case of combined intra and extra-uterine pregnancy. Devoe and Pratt, in 1948, reported 2 cases of simultaneous intra and extra-uterine pregnancy among 13,527 births at the Mayo-clinic, adding 2 more cases to the 395 reported authentic cases of combined pregnancies. Winer *et al* in 1957, added 68 more cases from a review of the world literature upto December 1954.

In this paper, we are reporting two cases of combined pregnancies seen in the last two years at the Cama and Albless Hospitals. The reported incidence of ectopic pregnancy in these hospitals is 1 in 231 full term preg-

nancies; and that of twin pregnancy is 1 in 80, during the same period.

The definition of combined pregnancies states that both pregnancies must co-exist in a live state at some time, resulting from one fertilization or two separate fertilisations within a relatively short period of time. This time interval cannot be more than three months, as by that time the uterine cavity would be obliterated by the approximation of the decidua capsularis and decidua vera. Since monozygotic twins can never be partitioned and implanted at two different sites, it is assumed that all combined pregnancies are the result of fertilised ova where two different follicles in one or both ovaries are fertilised.

Many cases go undiagnosed specially when treated by two different obstetricians at two different institutions.

These pregnancies may terminate as:

(a) cases in which extra-uterine pregnancy terminates first and intra-uterine pregnancy progresses to term or ends in the first or second trimester;

(b) cases in which intra-uterine pregnancy terminates by abortion and extra-uterine pregnancy is not diagnosed at the time of the evacuation;

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Received for publication on 10-3-1970.

(c) cases where intra-uterine pregnancy terminates at full term, either vaginally or by caesarean section, and extra-uterine full term pregnancy is not recognised until then.

An interesting aspect of combined pregnancy is that a large number of them do not continue beyond the first trimester. In cases where both pregnancies do reach beyond that period, a large number of them reach viability and often result in two live births. This is probably due to a better blood supply in conjunction with the intra-uterine pregnancy.

The first case is of combined intra and extra-uterine pregnancy in interstitial part of fallopian tube, following a homolateral salpingectomy.

Case 1

Mrs. K. C., 25 year old, Hindu, Gravida 3, Para 0, was admitted on 27-3-1968 in a collapsed condition at 10 a.m., with a history of fall while taking bath, loss of consciousness and slight bleeding from the mouth and nose.

She had her last menstrual period on 6-11-1967. Past history is very eventful. O.H. 1st was premature delivery in 1964, the baby expired on the 3rd day. Second was an abortion of 3 months, in May 1965. On 16-7-1967 she had a laparotomy for a persistent inflammatory mass in the posterior fornix. There was a cyst in left ovary with the fallopian tube stretched over it. Left ovariectomy and left total salpingectomy were done for a corpus luteum cyst (Histo-pathological report). Postoperative recovery was uneventful. Patient was getting regular periods following the operation and was attending the O.P.D. for chronic cervicitis. Patient had her last menstrual period on 6-11-1967, and when seen on 19-2-1968, for sharp left sided abdominal pain and giddiness, the uterus was of 3 months gestation and a small mass was felt in the left fornix. There was tenderness on moving the cervix. A tentative diagnosis of tubal gestation was made and she was admitted for observation. With 2

days rest and conservative treatment, the pain and tenderness disappeared and the WBC count dropped from 13,600 to 6,400/cmm. Patient took her own discharge from the hospital. At this stage a possible diagnosis of intra-uterine pregnancy with an ovarian cyst or vesicular mole with theca lutein cyst was entertained.

On admission on 27-3-1968, she was cold and clammy, markedly pale with an imperceptible pulse. The B.P. was 60/40 mm of Hg. An intra-abdominal swelling of the size of 18 weeks' pregnant uterus was found in the lower abdomen. There was marked generalised tenderness, more marked on the left side of the abdomen. A diagnosis of ectopic gestation with acute rupture, probably of interstitial type, was made. Immediate resuscitative measures were taken and the general condition improved.

On opening the abdomen, blood gushed out of the peritoneal cavity. A foetus of four months' size was lying in the peritoneal cavity. The site of rupture was the left cornu of the uterus and the sac was posterior to the uterus. The placenta was attached to the left side of the fundus of the uterus. The uterus was of the size of 18 weeks' gestation and intra-uterine pregnancy was diagnosed. In view of the fact that the patient had already one major catastrophe and should an abortion occur within the immediate postoperative period there could be a possible danger to the life of the patient and academic curiosity to establish the exact site of ectopic gestation, influenced the decision to terminate the uterine pregnancy. The uterus was opened by a transverse incision. The foetus of four months size with the placenta was removed. The left cornu was palpated through the uterine cavity. It was found thinned out. No communication was established between the cornu and the sac outside.

The uterine incision was sutured in two layers. The placental site on the uterus was also sutured in two layers to stop bleeding.

The right adnexa were found normal.

Postoperative period was uneventful, except for thrombophlebitis at the site of venesection.

The patient became pregnant again in September, 1968. She was admitted at

term on 17-6-1969 with labour pains and the presentation was vertex. The head was fixed and the foetal heart was 140/mt. It was decided to give a full trial. But following a glucose drip patient had fever with rigors and there was foetal distress. Hence labour was terminated by a lower segment caesarean section. A live child weighing 2.8 kg. was delivered. The uterine cavity was explored and at the site of previous ectopic the muscular layer was replaced by only a thinned out uterine wall covered with peritoneum.

Comments

The incidence of ectopic interstitial type—is rare, i.e. 3 to 4 per cent of all tubal pregnancies. Geoffrey Kalchman and Ronald Meltzer reviewed 73 cases of interstitial pregnancy following homolateral salpingectomy and added two more cases. The mechanism of implantation is obscure, but the following views are considered. Recanalisation of the operative site appeared to be a prerequisite for implantation in majority of cases. When the corpus luteum is in the opposite ovary, internal or external migration should be considered. When a tube or ovary of one side is congenitally missing, internal migration must be the method of implantation.

Cornual resection is no protection for reimplantation, because in 15 out of 75 cases reported cornual resection was done. The best procedure is salpingectomy with careful peritonization. The indications for previous salpingectomies could be salpingitis, ectopic gestation, endometriosis and ovarian cystectomy.

The interesting features in this case are:

1. Combined intra-uterine and extra-uterine pregnancy.
2. Presence of ectopic gestation in

interstitial part of tube which was removed previously along with the ovary for corpus luteum cyst.

3. The difficulty to arrive at a definite pre-operative diagnosis, because of the unusual findings, though suspected.

4. The decision to terminate the intra-uterine pregnancy.

5. The rare occurrence of finding simultaneously of both intra-uterine pregnancy and ectopic pregnancy in the interstitial part of the tube following homolateral salpingectomy.

6. The mortality rate at present in cases well looked after should not be higher than that for ectopic pregnancy.

Case 2

Mrs. R. K., 28 year old Muslim, gravida, 1, para 1, was seen on 7-3-1969 outside, by one of us with a history of nausea and anorexia. Last menstrual period was on 17-1-1969. On examination—temperature, pulse and respirations were normal and per vaginam the uterus was found to be of 8 weeks' gestation. The fornices revealed no tender swelling. She was next seen at 3 a.m. on 18-3-1969 as an emergency for severe abdominal pain with vomiting of four hours' duration. Patient was apprehensive. T 98.8°F., pulse 120/m and B.P. was 110/70 mmHg. There was guarding and tenderness of the abdomen, more marked on the right side; vaginal examination revealed an enlarged uterus of about 8 weeks' pregnancy and a tender mass in the right fornix. There was excruciating pain on moving the cervix. A diagnosis of ruptured right tubal pregnancy with a probable intra-uterine pregnancy was made.

Investigations: Hb 50%; RBC 2.8 million; WBC 10,600; Group A Rh+. Three hours after admission a laparotomy was performed through a subumbilical midline incision, under general anaesthesia. The peritoneal cavity was full of blood. The right tube was found ruptured at the ampullary region with a tiny foetus and chorionic

tissue protruding through the perforation. Right salpingectomy was performed.

The uterus was enlarged to 8-10 weeks' gestation. The left tube and ovary were normal. Abdomen was closed in layers.

Since an intra-uterine pregnancy was strongly suspected, the patient was given an injection of Proluton Depot, 250 mgm. I.M., and Duvadilan injections, I.M. 4 hourly. She was kept well sedated. But on the 3rd post-operative day she started getting severe colic and eventually on the 7th post-operative day she aborted. The uterus had to be evacuated under intra-venous Pentothal. The histo-pathological report was 'products of conception'.

Comments:

In this patient the first diagnosis was that of intra-uterine pregnancy and the presence of an extra-uterine pregnancy was only diagnosed after the rupture occurred. All the same, the findings of an ectopic pregnancy should not lead the physician to discard a previously made diagnosis of intra-uterine pregnancy and vice-versa.

When last seen in the first week of January 1970, she was found to be 8 weeks' pregnant.

Summary and conclusions:

Two cases of combined intra-uterine and extra-uterine pregnancy are reported.

Interesting features in both cases are discussed along with a brief review of the literature.

Acknowledgement:

We wish to thank Dr. S. Vaidya, M.D., D.G.O., Superintendent, Cama & Albless Hospitals, for permission to make use of the hospital records, Dr. S. Daroowalla, M.D., F.C.P.S., Hon. Obstetrician & Gynaecologist of this hospital, and our residents Dr. S. Loynmoon, M.D., and Dr. A. Karande, M.D., for helping us with the case notes.

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