ADVANCED BROAD LIGAMENT PREGNANCY†

by

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Advanced abdominal pregnancy is one of the most interesting but dreadful complications of pregnancy, both to the mother and the baby. Advanced intraligamentary (secondary extraperitoneal) pregnancy seems to be very rare and a few cases have been reported so far, as with the rupture of tube at its line of attachment to broad ligament, the ovum usually dies with formation of a varying sized haematoma (broad ligament haematoma).

The present case of advanced secondary abdominal (extra-peritoneal) pregnancy deserves reporting for two reasons (i) the case being advanced extra-peritoneal pregnancy—which is much rarer than intraperitoneal advanced pregnancy and (ii) this pregnancy being retained inside the abdomen for a period of 7 years without being diagnosed by any doctor during this prolonged period.

CASE REPORT

Smt. P.R., a 4th gravida, aged 43 years, attended the O.P.D. (G. & O.), N.R.S. Medical College Hospital on 3-5-72 with the following complaint—appearance of an abdominal tumour for 7 years which became fixed and painful for the last 3/4 months. Before coming to the hospital she had been diagnosed as a case of malignant ovarian tumour by a gynaecologist outside Calcutta, who had referred the patient to this hospital for further investigations and treatment. The past obstetric history—para 3 + 0. All 3 were term normal deliveries at her village home conducted by untrained mid wife. Last one was 10 years ago.

Menstrual history: Cycles were regular of 30 days; flow was heavy of 8-10 days duration, no dysmenorrhoea, L.M.P.—14-4-72.

Past Medical and Surgical history revealed, history of malaria in childhood.

On examination, she was of thin built and of average nutrition. Her pulse was 82/min., temperature—normal, B.P. 114/70 mm. of Hg. Heart and Lungs—N.A.D., Liver and Spleen were not palpable.

Abdominal examination revealed a firm mass (at places solid or hard in consistency occupying the whole of lower abdomen, but encroaching more on left side. Upper extent of the mass reached upto the level of umbilicus, but its lower pole seemed to be inside the pelvis. It was movable from side to side, but more or less fixed from above downwards, tender on movement. Suspicion was aroused about a dead foetus (lithopaedion) on palpation. No foetal movement was felt and F.H.S. could not be heard.

Vaginal examination revealed parous cervix pointing forwards, cervical movements were not tender. The uterus was anteverted, parous in size and was deviated to the right and was felt separate from the mass. The lower pole of the mass (felt per abdomen) was high up through all the fornices; vagina was relaxed due to multiparity.

Present obstetric history was elicited only by putting leading questions to the patient and to her husband. After examination with suspicion of a lithopaedion in mind, the patient narrated that 7 years ago she had secondary amenorrhoea for 10 months along with a pregnancy of full time foetus. She could get foetal movements

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and Dai (untrained midwife) examined her after 40 weeks, but there were no labour pains. After 42 weeks of amenorrhoea the local doctor (quack i.e., non-registered) was called in and he gave one intramuscular injection to stimulate labour pains. There was no onset of labour, but patient vomited with upper abdominal cramps. Subsequently, she was treated with some other medicines to stop vomiting. At the end of 11 months the foetal movements stopped and patient started having normal menstruation from that month onwards at regular 30 days interval, (but for 3 years—flow became heavy), swelling gradually became smaller and smaller reaching ultimately to the present state. Then, that village doctor told her to go to city hospital for operation of this abdominal tumour. At present she felt pain on the tumour occasionally and also due to fixity and hardness of the tumour she went to one gynaecologist for treatment.

Investigations: Blood Hb. 10.5 gm%, W.B.C.—5200/cmm., Diff. count—poly—70%, lympho—22%, mono—3%, eosino—5%. Blood urea—23 mg%, N.P.N.—26 mg.%, Sugar—68 mg.%. Urine —No abnormality, E.S.R.P35 mm. (1st hour).

Straight X-ray of abdomen—(P.A. View) showed evidence of intrauterine foetal death.

Hysterosalpingography revealed normal size uterus and normal right tube and stretched out left tube over the foetal shadow (Fig. 1).

Intravenous pyelography showed both kidneys functioning normally. The left kidney showed hydronephrotic changes due to pressure.

Laparotomy—on 12-5 72—done by lower right paramedian incision. On opening the peritoneal cavity a roundish mass about 10″ x 8″ was seen occupying the left side of broad ligament. This mass was delivered outside the cavity after extending the incision and separating several adhesions by gauze dissection. The adhesions were mostly behind the mass on the left side with sigmoid colon and omentum. The left ureter was injured during clamping and incising the left infundibulopelvic ligament as it was dilated and adherent to the posterolateral aspect of the sac. The left tube was found stretched over the upper part of the sac. The uterus was of parous size. The left ovary could not be made out but right tube and ovary were found. Total hysterectomy with left sided salpingo-oophorectomy was done. The proximal end of the cut ureter (left) was mobilised and implanted into the bladder, the stumps were peritonised and abdomen was closed down in layers after putting a drain.

The patient had an uneventful recovery and was discharged from the hospital on fourteenth postoperative day.

Histopathological report — Macroscopic — A round pinkish coloured mass of about 10″ x 8″ in size. The left tube was stretched across the top of the mass. On opening it was found to be a thickened gestation sac containing a full-term male foetus deformed and mummified with attached shrivelled up umbilical cord which had ended at head end of the sac. One hand and the ribs of the chest wall were adherent to the sac (anterior aspect). The actual placental attachment could not be located and made out as the placenta was completely merged with the sac wall at the head end of the foetus. The left ovary also could not be made out as it was absolutely atrophied and merged with the posterior aspect of the wall of the gestation sac (Figs. 2 and 3).

Microscopic examination of the specimen

Specimen of sac wall at placental site revealed numerous blood vessels and areas of fibrous tissue. No evidence of chorionic tissue or decidual reaction seen (Fig. 4). (i) Endometrium and myometrium—secretory endometrium with a small fibromyoma (interstitial); (ii) from posterior wall of the sac ovarian tissue as evidenced by the presence of Corpus albicans. Because of large amount of fibrosis and calcifications full ovarian tissue could not be isolated properly.

Discussion

Cornell and Lash in 1933 made a review of 226 cases from the literature (from 1919 to 1932) along with 10 cases of their own. Drury in 1960 reviewed a series of 209 cases. In 1955, Kobak, *et al*, presented 3 cases of extraperitoneal pregnancies with 3 viable foetuses, one of which survived, another was stillborn at term and the third died of atelectasis and prematurity. King (1954) reported one case of living intraligamentary pregnancy delivered by abdominal section at 40 weeks. Poddar (1958) over a study of 12 years, in Eden Hospital, reported one broad liga-

ment pregnancy out of 10 secondary abdominal, though that pregnancy (intraligamentary) was not an advanced one. According to Ware (1948) and King (1954), abdominal pregnancy is only said to be advanced, if it is 28 weeks or more, but according to Yahia and Montgomery (1956) if it is 20 weeks or more and Clark, *et al* (1959) if of 12 weeks or more. In the opinion of the author advanced pregnancy should be at 28 weeks or more in duration. The author came across 2 other cases of intraligamentary pregnancy, at N.R.S. Medical College Hospital over a period of 14 years (1956-1970) but both of them were of early months (of 12 weeks and 14 weeks duration). One of them was diagnosed accidently on laparotomy with a preoperative diagnosis of impacted ovarian cyst in pouch of Douglas, without a definite history of amenorrhoea.

Summary

One interesting case of advanced secondary broad ligament pregnancy (which was retained for 7 years) has been presented with its diagnostic criteria. A case of abdominal pregnancy can be diagnosed only if one thinks of it during the clinical assessment of the case. The literature on the subject has been reviewed.

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See Figs. on Art Paper IV