

# SILENT UTERINE RUPTURE RESULTING IN SECONDARY ABDOMINAL PREGNANCY

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Since its first mention in the Talmud, a monumental literature has accumulated concerning extra-uterine pregnancy. After the Rabbis of the Talmud first reported their observations of the 'child emerging from the abdominal side of the mother', and the Buddhist legend that the boy Buddha was 'born through the right side and armpit of his mother', the first accepted authentic account of the extra-uterine pregnancy was made by Albucasis in the 11th century. Later Riolan (1626) referred to several cases.

Credit for the first recorded operation for extra-uterine pregnancy must go to the New World. On 25 December 1796 John Bard, of New York, performed the laparotomy and the patient recovered.

*Types of Ectopic Pregnancy.* Ectopic is a pregnancy located outside the normal uterine cavity. Primary ectopic pregnancies comprise tubal, ovarian, abdominal and cervical. Tubal pregnancies occur in the ampulla, the isthmus, or the interstitial part of the tube. Abdominal pregnancies may be primary or secondary. In the primary the initial implantation of the fertilised ovum occurred in the abdominal cavity; the secondary are re-implanted after initial nidation at some other site. The cervical pregnancy is rare, but implantation in the unfriendly mucosa of the cervix does occasionally occur.

In a diligent search of the literature no mention has been found of any case similar to the one about to be described.

## CASE REPORT

L.T., a Native of about 29 years of age, was admitted to the Kimberley Maternity Hospital on 20 September 1953 complaining of vague abdominal pains.

*Menstrual History:* Menarche at about 13 years. Cycle regular 3/28 day type. No dysmenorrhoea.

*Pregnancies* 5; youngest now 2 years, oldest 14 years; 2 boys, 3 girls. No abortions, no operations.

*Present History.* Last menstrual period early in March 1953. During her pregnancy she experienced 'nothing different to her previous pregnancies'. She felt life after about 20 weeks. On 16 September 1953 she commenced feeling slight abdominal discomfort and was sent into hospital by her private doctor on 20 September 1953.

*On examination* the uterus appeared about the size of a 5 months' gestation; the cervix was hard and revealed several irregular lacerations. Abdominal palpation showed the presence of a live foetus lying transversely with the head to the mother's right flank, palpation being facilitated by an unusually thin abdominal wall. This was confirmed by X-ray, the radiologist describing the maturity as probably more than 6 months. She was kept in hospital for observation and it was hoped that the child would mature to viability.

## *Progress*

On 13 October, strong labour pains began and persisted. Examination showed no cervical dilatation after 4 hours and no discharge, and at this stage the presence of an additional, and intra-uterine, foetus was excluded. The uterus was now distinctly larger than was first noted on admission. It was decided to operate.

During induction of anaesthesia the patient suddenly vomited and inspired some of the vomitus, becoming dyspnoeic, cyanosed and shocked, and rapidly developing signs of pulmonary oedema. The honorary anaesthetist to the hospital was called and expeditiously and successfully carried out a bronchoscopy, clearing the foreign matter from the bronchi by suction. She was taken back to the ward, where she rapidly recovered and the uterine contractions ceased.

On 19 October labour pains started again and operation was again decided upon. The honorary anaesthetist gave the anaesthetic, and warned us that the patient manifested signs of shock during the induction stage.

Through a sub-umbilical mid-line incision the abdomen was opened and an extraordinary picture was disclosed. A live, well developed foetus was found lying transversely with its head under the maternal liver, and enclosed in its membranes. Out of a porthole-like aperture in the wall of the uterus, about 4½

inches in diameter and encroaching onto the left cornu of the fundus of the uterus, emerged a cord of normal appearance and about 14 inches in length. When the cord was followed proximally through the orifice it was observed to enter a perfectly normal placenta firmly embedded in the myometrium adjoining the border of the orifice. Examination of the wall of the hiatus revealed that the outer edge was lined by peritoneum merging into smooth fibrous tissue covering the myometrium. A rapid survey revealed normal ovaries and tubes, and a uterus of about 5½ months' size.

My decision not to carry out hysterectomy nor to remove the placenta and attempt closure of the uterine window, was encouraged by an anxious anaesthetist. The cord was cut between ligatures and the 6½ lb. female child cried as it was lifted from the abdominal cavity. The membranes were freed from their attachments with no difficulty, and the abdomen closed without drainage.

The patient made a quite uneventful recovery from the operation. Unfortunately the baby, after doing well for the first few days collapsed on the 4th day and died.

On 10 November 1953 the mother, now well recovered, was taken back to the theatre and a hysterectomy was performed. During the operation about 2½ pints of blood-stained offensive-smelling fluid was sucked from the peritoneal cavity, in which,



Fig. 1. Uterus as removed. A=placenta extruded into uterine aperture during involution. B=tied stump of cord. C=edge of uterine aperture.

however, no evidence of peritonitis could be discovered. Examination of the specimen (Fig. 1) showed only slight evidence of involution but the little that had taken place had squeezed the still firmly attached placenta into the uterine window where it bulged, giving a tumour-like appearance.

Close subsequent cross-examination failed to elicit from the patient any evidence that an accident, assault or other untoward event had taken place during her pregnancy which might account for the rupture of the uterus, which was apparently a symptomless episode, resulting in a secondary abdominal pregnancy.

The patient was discharged fit on 5 December 1953.

#### PATHOLOGIST'S REPORT

Macroscopic examination of this specimen of uterus and 'tumour' shows the presence of the uterine cavity and myometrium. Lateral to and above the uterus there is a large tumour-mass, 15 × 15 × 10 cm., attached to the myometrium.

Sections taken from the tumour show the presence of chorionic villi, which are fibrosed. The histological features are consistent with an extra-uterine pregnancy. There is no evidence of Fallopian tubes or ovarian tissue associated with the chorionic villi.

#### DISCUSSION

It must be accepted that originally fertilization and implantation of the ovum in the uterus took place as a normal event. It must also be accepted that rupture of the uterus occurred at some stage during pregnancy, with evacuation of the foetus through this false opening. At no time did the patient, a Bantu of average intelligence, complain to her doctor that anything unusual had happened during her pregnancy.

Examination of the healed uterine wound at the time of the first operation, of necessity a hasty scrutiny, cast little light on the stage of pregnancy at which rupture had taken place. One assumes that it occurred at the site of some weakness in the uterine muscle. On the other hand there was no history of external trauma, and the patient had never had a curettage or manual removal of an adherent placenta. Even if there had been evidence of any of these accidents, whence had come the stimulus for a rupture in this weakened section of the muscle? And why no haemorrhagic or other phenomena which might reasonably be expected to accompany such an event?

Are we left with the explanation that, perhaps following infection or embolus (neither very likely), a myometrial infarct developed which at an early stage of pregnancy became the seat of necrosis? One might suggest that in this way a plug of the uterine wall became dislodged, permitting the escape of the foetus.

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#### REFERENCE

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