UPPER SEGMENT VERTICAL RUPTURE OF THE UTERUS

by

R. R. Trivedi*, M.D., D.G.O., V. G. Patel**, M.D.
T. V. Patel***, M.D., F.C.P.S.

Rupture of the uterus is one of the most dreadful complications occurring both in the pregnant and parturient woman. It not only endangers the life of the mother but also of the foetus.

Usually this accident occurs either in the hands of a person who has meagre or no knowledge of obstetrics like an untrained dai, who practises widely in rural area, or it is misjudgement or negligence on the part of an obstetrician. But rarely, in spite of all the vigilance and care, it may occur spontaneously. We present a case where rupture occurred in the upper segment involving both the walls in the midline and thus bisecting the uterus.

Case Report

A patient K.N.T., aged 40 years, was admitted on 22-4-1965 at 4.30 A.M. with the history of 9 months' amenorrhoea and bleeding per vaginam.

Patient gave history of pain and bleeding at home, 15 days ago, for 2 days continuously and was treated by some medicine and injection. The patient was relieved and was advised to report when bleeding recurred. The pain started again at 10.00 A.M. on 21-4-1965, and the patient had a bout of bleeding at 4.00 P.M. on the same day. The patient was transferred to a Primary Health Centre, at a distance of 30 miles from her place. She was given primary aid, and was transferred to a nursing home. As she continued to bleed she was transferred to S.S.G. Hospital, at 4.30 A.M. about 12 hrs. after bleeding had started. The total journey was 45 miles.

Her obstetric history: 8th gravida, 7 F.T.N.D. of which 5 were living and 2 died of disease. Last delivery was 8 years ago. There was one abortion at 6 months, 12 years ago. Her menstrual history was regular.

On general examination, temperature was normal, pulse 104/minute, volume fair, respirations 32/min. Tongue and conjunctivae were pale. Blood pressure was 90/60 mm. of Hg. On examination of abdomen, uterus was full-term size, vertex I, at the brim. Foetal heart seconds could not be located. Uterine contour was regular, uterus was tense and was contracting and relaxing, at long intervals. Clinically there was no cephalo-pelvic disproportion. Probable diagnosis was mixed accidental haemorrhage. So examination through fornices, was done very gently. No bogginess was felt anywhere, and a finger was put gently into the cervix. Cervix was two fingers dilated, not well taken up, membranes were absent and presenting part was vertex. Pelvis was adequate (Hb. was 6.5 gms. and urine showed trace of albumin).

General resuscitative measures were carried out, with the diagnosis of mixed accidental haemorrhage. To hasten deli-

*Lecturer in Obstetrics & Gynaecology, Medical College & S.S.G. Hospital, Baroda.

**Honorary Obstetrician & Gynaecologist, S.S.G. Hospital, Baroda.

***Head of the Department of Obstetrics & Gynaecology, M.S. University of Baroda, Baroda.

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very pitocin, 2.5 units in a pint of 5% glucose, was started by a slow drip of 10 drops/minute and on the other hand blood was started at 6.30 A.M.

The patient was observed continuously. The uterus started contracting and relaxing mildly at intervals of 7-10 minutes, each contraction lasting for about 30 seconds. There was no bleeding per vaginam. The fundal height and girth remained the same. Patient was alright till 9.00 A.M. At 9-10 A.M. the contour was lost and the uterine margins could not be made cut. Foetal parts were felt superficially near the fundus. The diagnosis of rupture of the uterus was obvious. Immediately exploration was decided on.

On exploration of the abdomen, there was a large amount of free blood in the peritoneal cavity. After draining the blood, it was found that the rent was in the upper segment from where the placenta and the lower limbs had come out into the abdominal cavity.

The thorax and the head were in the uterus. Baby was delivered and the rent was inspected. The tear was found to be extending from the anterior wall in the midline vertically along the fundus, to the posterior wall, bisecting the upper segment almost completely. The uterus was Couvelaire type with a haematoma in the right broad ligament. The uterus was sutured in two layers by continuous chromic cat gut. Sterilization was done which was slightly difficult on the right side because of the broad ligament haematoma. During the operation 700 ccs. of blood, and one pint of 5% glucose with 10 units of pitocin, were given.

The baby was a still-born male of 3.2 kgms. The circumferance of head was 37 cms. and length was 58 cms. There were 250 gms. of old clots found from the peritoneal cavity.

The patient maintained the blood pressure between 70 and 90 mm. of Hg., throughout the operation, and immediately after operation her general condition started improving. Post-operative period was uneventful, except for mild thrombophelebitis at site of venesection in one leg. Sutures were removed on the 7th day. Union was good. Patient was discharged on 15th post-operative day in a healthy condition. Patient came for follow-up after 2 months and had no complaints. Examination revealed no abnormality.

Discussion

Rupture can be spontaneous, traumatic or giving way of previous caesarean or myomectomy scar. Spontaneous rupture, according to Eastman, is more common than traumatic rupture. This type of rupture is mainly due to degenerative changes in the muscle.

The predisposing factors causing spontaneous rupture are older age, multiparity, especially a grand multipara, adenomyosis, weakness of uterus because of manual removal of placenta, previous curettage or post-abortive and post-partum sepsis. Spontaneous rupture rarely occurs during pregnancy and if it does it is in the upper segment, while during labour it is usually in the lower segment.

The case under discussion had a rupture in the upper segment extending vertically on both the walls. She was a multiparaous patient, but had no history of previous curettage, operation or sepsis. The second possibility is whether pitocin in physiologic dose was responsible for the rupture.

Usually pitocin helps the contractions of the upper segment and formation of the lower segment. If at all rupture occurs it is the lower segment that gets affected first. Here the lower segment was intact.

This was a multipara and showed evidence of Couvelaire uterus. Can it be that pitocin helped in more extravasation of blood by contractions,

and resulted in further weakness of the uterine upper segment, which could not stand the intrauterine pressure during contractions and gave way in the mid-line? If this hypothesis for rupture of the uterus can be hold good, use of pitocin in a grand multipara even in physiological doses in accidental haemorrhage is fraught with danger.

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