PREGNANCY FOLLOWING RUPTURE OF THE UTERUS

BY

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Rupture of the uterus in pregnancy or labour is one of the most dangerous complications in obstetrics. Efficient obstetric service has brought down the incidence of this dreaded complication considerably, so that at the present time rupture of the uterus has become a rarity in countries with such services. As such, pregnancy following rupture of the uterus is still more rare and it is this rarity of the condition that has prompted me to report this case.

Mrs. P, aged 27 years, 5th para, full-term, was first admitted into this hospital on 4-7-52 at 2-30 A.M. with a history of having started her labour two hours before.

Previous Obstetric History. Her first delivery was six years ago when she gave birth to twins naturally. Both the babies, however, died in the neonatal period. Her second delivery was five years ago, which ended in forceps and still-birth. Her third baby was born at full-term naturally but was a still-birth four years ago. Her fourth delivery was three years ago at full term, ending in forceps and still-birth.

Examination at the time of admission:—General condition satisfactory. B.P. 110/70. Pulse 80 per minute. Urine, no albumen.

Obstetric Examination. Height of the uterus full-term. Uterus acting moderately strongly. Position of the foetus R.O.A.—Head floating. Foetal heart good. Patient draining liquor since the onset of pains.

Vaginal Examination. Cervix about 3/5 dilated, not well taken up. Head floating, membranes absent. Capacity of the pelvis below average. In view of the findings and the previous history it was decided to do a caesarean section.

However, before the operation could be started, within about forty-five minutes it was found that the foetal heart had stopped, the maternal pulse had gone up to 120 p.m., B.P. had dropped to 90/60 and that the foetal parts could be easily palpated per abdomen. Rupture of the uterus was diagnosed and immediate laparotomy done. The foetus and placenta were found lying free in the peritoneal cavity with a fair amount of blood. The placenta and foetus were removed and further inspection showed that there was a tear in the lower uterine segment anteriorly.

The tear had rather clean cut edges, was running transversely across the lower uterine segment in its whole breadth and was situated rather low down. The bladder was, however, not involved. As the patient had no live children it was decided to suture the rent and give her another chance of conception. The rent was therefore sutured in two layers and covered over by the uterovesical peritoneum as in lower segment caesarean section. The abdomen was closed. The patient had a mild febrile post-operative convalescence. She had blood transfusion at the time of the operation and antibiotics post-operatively. She made a good recovery and went home on 1-8-52. She was strongly advised to come back to the hospital early enough, should she become pregnant again.

She came back for admission (thirteen months after the rupture) on 3-9-1953, pregnant 34 weeks. Her general condition was good. Height of the uterus 34 weeks, position of the foetus L.O.A., head floating, foetal heart good. It was decided to deliver her by elective caesarean section as soon as she started pains and she was kept in hospital under close observation. On 21-10-53 at 3-10 A.M. she started labour pains. An elective lower segment caesarean section was done and a live male baby, weighing 6¾ lbs., was delivered. There were no adhesions in the abdomen and the previous tear could be seen as a well healed scar. The present incision was placed about half an inch above the scar. The patient was sterilized. She made an uneventful recovery and went home three weeks later with a healthy baby.

It is well established that rupture of the uterus can be prevented by proper antenatal and intranatal supervision. The avoidance of classical caesarean section, wherever possible, minimises the rupture of previous caesarean section scars. Even so, at times, even in the best managed of labours in multiparae occasionally a rupture of the uterus occurs. Once the rupture has occurred most modern writers condemn the expectant or conservative treatment and advise laparotomy in every case. Where the rupture is complete with the baby and placenta lying free in the peritoneal cavity laparotomy with treatment for shock and collapse is the treatment of choice. Perhaps there may be still a very small place for conservative treatment, vaginal delivery followed by plugging and treatment for shock and infection in cases of incomplete ruptures. Even in these cases if facilities are available I think laparotomy is the better method. After a laparotomy there are two alternatives to consider, a hysterectomy, perferably total, or suturing the rent. In a woman with a sufficient number of children hysterectomy is the method of choice if she could stand it. But in the young woman with no live children one should consider the question of suturing the rent so that the child-bearing function may be preserved. It is true that it is fraught with great danger in that the succeeding pregnancy the rupture may repeat itself. But if efficient antenatal and intranatal care could be made available the risk is worth taking. However, these rents in the

uterus at times are so ragged and the edges so badly contused that it may be impossible to suture them effectively and that factor also may necessitate a hysterectomy. In the presence of frank infection hysterectomy is preferable to suture. In this particular case cited there was every reason for preserving the uterus and the tear itself had such clean cut edges, quite uncommon, that suturing was very easy. Surprisingly the woman conceived within a few months of the operation.

Gordon Ley and Markee in 1926 were able to suture the tear in the uterus successfully in their cases.

Nineteen months later Ley's patient, after a normal labour, gave birth to a full-term child. Lazrebie of Novasad reported in 1932 the case of a seventh para who had a rupture of the fundus of the uterus as a result of an accident. The fundal tear was sutured and in the eighth pregnancy the scar gave way. Hysterectomy had to be done. The same author quotes another case of rupture. The patient was childless. Hysterectomy was refused. She however survived after expectant treatment and subsequently bore a living child and was sterilized.

Occurrence of rupture of the uterus in women who have previously suffered from the same accident is mentioned by many authors. Couvelaire reported 9 out of 17 previous ruptures, Livon 18 out of 35, Peham 4, Labhard 2, Kriwisky, Dittel and Wenzel one each. Traso traced patients who had rupture of the uterus and subsequently became pregnant. Three had rupture again. Two of these died and one was saved by laparotomy. Five had normal labour. Stroganoff followed two patients who delivered themselves without accident. Naguib Mafouz Bey followed the patients treated conservatively and traced 15 of them. Five had one or more pregnancies, and labours ended without accident. Ten did not conceive at all. Randolph Gepfert reported in 1939 a case in which the uterine scar of a previous lower segment caesarean section presumably gave way in the early months of pregnancy as a result of trauma, the product of conception being completely expelled into the abdominal cavity, where it developed four weeks past term as secondary abdominal pregnancy. Suture of the ruptured uterus at this time resulted in good union and a subsequent pregnancy was carried on to term. Patient was delivered within 1 year this time by caesarean section.

In the particular case I have cited there was every justification for resorting to suture of the tear; firstly, because the patient had no live child and, secondly, the tear itself was not a badly contused laceration. The danger in these cases, apart from post-operative peritonitis is the subsequent labour, should she become pregnant again. Naguib believes that the repetition of the accident in the same patient is due not so much to the weakness of the scar as to the persistence of the abnormal condition which led to the first rupture. Hence great care must be bestowed on these patients during pregnancy and labour. Though natural deliveries have occurred, I think it is safer to deliver these cases by caesarean section as, certainly, there is a definite

risk both for mother and child in vaginal delivery.

Summary

A case of pregnancy and delivery by caesarean section in a patient who had a complete rupture of the uterus treated by laparotomy and suture of the uterus in the previous labour is reported.

The place of expectant treatment in rupture uterus and laparotomy with hysterectomy or suture of the rent is briefly discussed.

The scant literature available on the subject is quoted.

References

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