A hole in a primigravid uterus—an unusual finding at elective Caesarean section

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Summary

The spontaneous rupture of the primigravid uterus before the onset of labour is an obstetric rarity. Invariably there is a history of antecedent scarring. A case of uterine rupture, an unusual finding at Caesarean section, is reported. The only antecedent history was partial salpingectomy and oophorectomy. The probable mechanism of rupture is discussed. Admission at 32 weeks and Caesarean section at 36 weeks is recommended in the next pregnancy.

KEY WORDS: salpingo-oophorectomy.

Introduction

There is no reported case of uterine rupture in a primigravida, prior to the onset of labour, where there had not been an antecedent history of uterine scarring. Waters and Hall (1962) stated 'rupture of the uterus of a primigravida in late pregnancy without a discernable cause is one of the rarest obstetric oddities'. Procedures associated with scarring include dilatation and curettage, myomectomy, intrauterine contraceptive device, resection of uterine cornu or septum. In these situations the procedure invariably involves damage to the endometrium and myometrium.

The following case report describes uterine rupture in a primigravida that occurred before the onset of labour. The only antecedent history that could have caused uterine scarring was right partial salpingectomy and oophorectomy.

Case report

The patient, a 22-year-old Caucasian, 38 weeks gestation, was admitted for elective Caesarean section because of breech presentation. The pregnancy had been uneventful apart from transient hypertension at 36 weeks. No external cephalic version had been attempted. There was no history of abdominal

pain at any time during the pregnancy. Physical examination was unremarkable apart from an unengaged breech presentation. The past history was unremarkable apart from right partial salpingectomy and oophorectomy for benign dermoid cyst performed at 5 years of age.

General anaesthesia was induced. The abdomen was opened by the Pfannenstiel incision. There was no haemoperitoneum. Routine lower segment Caesarean section was performed and a male infant weighing 2.99 kg. was delivered. The placenta was delivered by cord traction. It was implanted in the fundus posteriorly. At manual exploration of the uterus to exclude a septum as a cause of persistent breech presentation, a hole was palpated in the region of the right uterine cornu. The uterus was brought out through the abdominal incision. The hole was situated in the anterior lateral aspect of the right cornual region. It was oval in shape and measured about 5 cms in length. The margins of the hole had scar tissue. There was no tear into fresh uterine tissue. The scar tissue surrounding the hole in the uterus was excised and a two-layer closure was achieved. The lower segment and the abdomen were closed in the routine fashion. The patient made an uneventful recovery and was discharged on the 10th postoperative day.

Discussion

In the opinion of Poidevan (1959) and Case *et al.* (1971), rupture of the uterus in a primigravida has always been preceded by a weak scar, involving the full thickness of the uterine wall. There is no published report where the antecedent history of trauma did not involve the endometrium and myometrium. The pathogenesis of uterine rupture in this case remains speculative.

When the diagnosis of rupture of the uterus was made the initial belief was that the patient had had tubal excision with cornual resection, which is recognized as a cause of uterine rupture (Auamkul, 1970). This was excluded when the previous oper-

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ation notes showed that she had had right partial salpingectomy and oophorectomy for benign dermoid cyst.

Although spontaneous uterine rupture before the onset of labour has been reported in association with abnormalities of placental implantation (Louw, 1973; Pedowitz and Penell, 1958), this mechanism could not be implicated here because the placenta was not involved in the site of rupture.

It is likely that some injury was inflicted on the wall of the uterus at the time of her operation at 5 years of age. The anatomy could have been difficult so that salpingectomy did involve incisions or sutures that weakened the uterine wall.

The uterine defect was an incidental finding at elective Caesarean section. It is well recognized that primary failure of healing of uterine scar can lead to dehiscence or windows that can be present throughout pregnancy (Waters and Hall 1962; Case *et al*, 1971). The signs and symptoms of rupture of the uterus would manifest when the scar ruptures or the window extends in early labour. Silent rupture, dihisence or windows should not be considered in the same category as true uterine ruptures. They represent no extension into fresh uterine tissue, lack symptoms, cannot be diagnosed, involve no blood loss or shock. The hazard to the mother or baby is minimal, as in this case.

When the diagnosis of uterine rupture is made the alternative forms of management include immediate hysterectomy or repair with or without tubal ligation.

In this case the reproductive function was preserved as the diagnosis was unexpected and the patient was not in immediate danger. The risk of rupture of a scar in the upper segment for all pregnancies reaching viability is 2.2%, 4.7% when the women are allowed to enter labour and 8.9% when

vaginal delivery occurs (Dewhurst, 1957). It was considered that the decision to accept or reject these risks must be with the patient and her husband. Should the patient conceive again, she would be admitted at 32 weeks gestation and elective Caesarean section performed no later than the 36th week (Sheth, 1968; Ritchie, 1971).

Acknowledgments

I thank Mr A. D. Haeri, Consultant Obstetrician at Perivale Maternity Hospital for allowing me to report this case, and Mrs M. Reading for secretarial assistance.

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(Accepted 13 July 1983)