Case report

Rupture of a gravid uterus within an umbilical hernia

The incidence of uterine rupture in pregnancy/labour in Sokoto, Nigeria, is one of the highest reported in the world literature,[1,2] while umbilical hernias occur more frequently in Africa than in the Western world.[3] We report a case of herniation of the gravid uterus into a long-standing umbilical hernia resulting in prolonged, obstructed labour and uterine rupture. We are unaware of any similar previous documentation despite review of the literature and a Medline search.

A 40-year-old woman (gravida 11, para 9 + 1) (4 alive)) presented at term with a 3-day history of labour pains. A few hours before presentation, she noticed frank vaginal bleeding. She did not receive orthodox antenatal care in any of her pregnancies, including the index one, and all her previous deliveries were at home. She first noticed the umbilical hernia during childhood, and it had been increasing in size since then. Three months before presentation the pregnant uterus descended into it and remained there.

Clinical examination revealed a slim, acutely ill-looking woman who had mild pallor, but was neither dehydrated nor febrile to touch. Her pulse rate was 140 beats per minute and blood pressure 130/90 mmHg. The respiratory rate was 28 cycles per minute and breath sounds were normal. Abdominal examination revealed a huge umbilical hernia with hypopigmentation and excoriation of the covering skin (Fig. 1). Fetal parts were easily palpable within the hernia; however, the lie and presentation were difficult to appreciate and the fetal heart could not be heard. On pelvic examination the vagina was found to be filled with blood clots, the cervix was 8 cm dilated and the presenting part could not be felt. An assessment of ruptured uterus with extrusion of the fetus into an umbilical hernia was made and she was prepared for emergency laparotomy.

The patient was resuscitated with normal saline infusion and intravenous antibiotics were started. An indwelling Foley's catheter was passed and 500 ml of bloody urine were drained. Her packed cell volume was 32%, urinalysis was negative for glucose and 4 units of compatible blood were made available for surgery. At laparotomy,

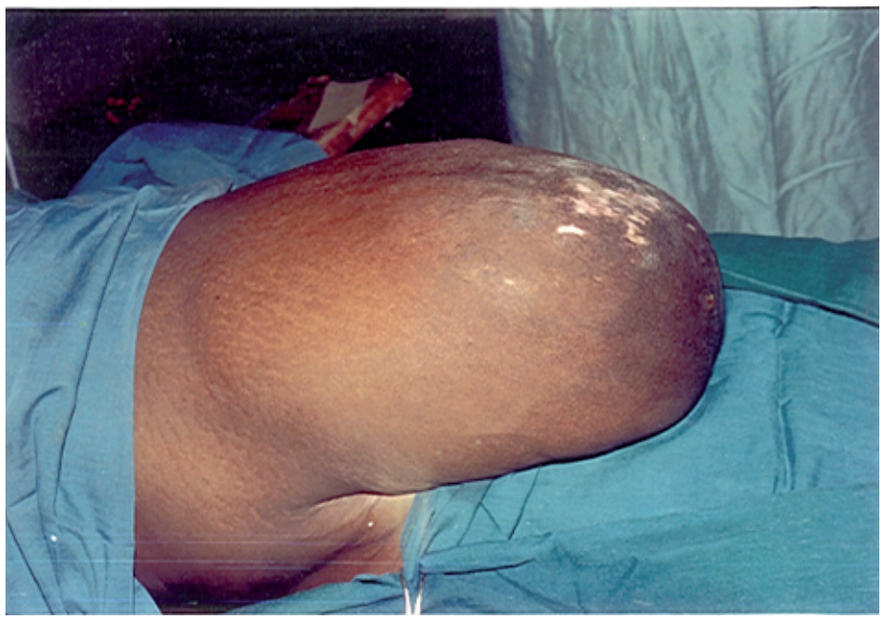

Fig. 1. Preoperative view of the anterior abdominal wall showing the huge umbilical hernia.

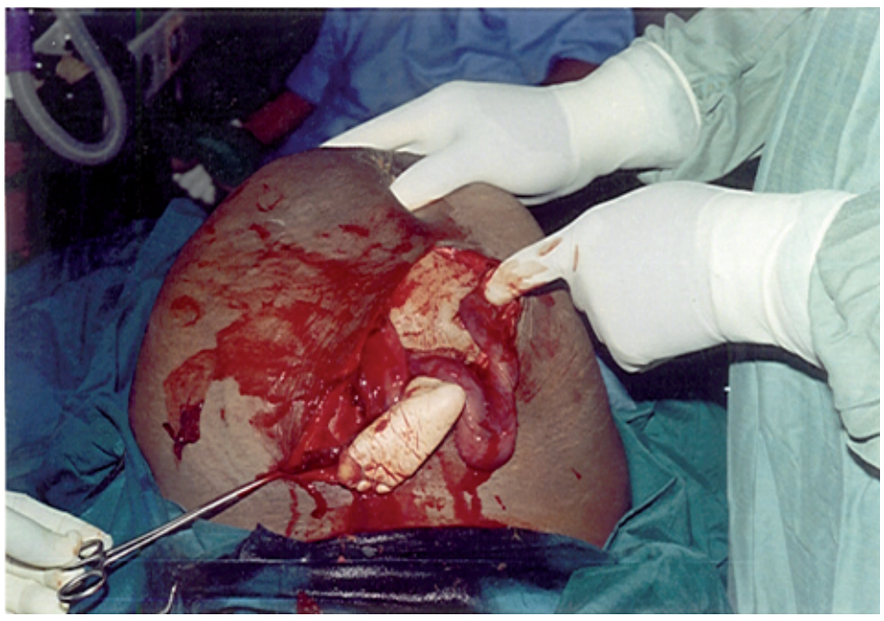

Fig. 2. Skin incision on the inferior surface of the umbilical hernia with fetal parts and umbilical cord just beneath.

a fresh, stillborn male fetus weighing 3.2 kg was found just beneath the skin incision on the inferior surface of the hernia (Fig. 2). There was an 8 cm-long, L-shaped rupture in the posterior aspect of the lower uterine segment; its long arm extended superiorly on the left to involve the upper segment. The uterus lay just posterior to the baby in the hernia. A total abdominal hysterectomy was done followed by repair of the anterior abdominal wall using Mayo's double-breasting (overlapping) technique. The postoperative period was uneventful.

Herniation of the gravid uterus into anterior abdominal wall hernias, including umbilical hernias, has previously been reported.[4,5] What makes our case unique is the patient's late presentation and the complications that consequently developed. Had she been seen during the antenatal period, conservative measures might have succeeded in spontaneous reduction of the hernia. Delivery would have been achieved by elective caesarean section,[5] with a better fetal and maternal outcome. In the absence of intervention in the antenatal period or in early labour,

obstructed labour was inevitable owing to the acute angle between the uterine axis and plane of the vagina that the fetus was unable to negotiate.

The unusual features of this case did not delay the diagnosis of ruptured uterus or prevent appropriate treatment by resuscitation, laparotomy and total abdominal hysterectomy. Hysterectomy was performed owing to the site and extent of the rupture, risk of sepsis after prolonged labour, and ability to perform the procedure reasonably quickly. Ghatak[1] also advocated the removal of the infected and torn uterus to reduce postoperative morbidity. Mayo's operation, double-breasting (overlapping) of the linea alba, was used for repair of the hernia. Although other forms of repair – Keel, da Silva – have been described,[6] these are less popular and now viewed as obsolete and of historical interest only. Abdominal wall repair was combined with emergency surgery for the ruptured uterus because the patient was judged to be in a fit condition to withstand both procedures during a single operation, to reduce the hazards of repeated general anaesthesia, and to avoid the cost of two procedures to a patient who had limited financial resources.

The extension of effective and affordable medical care, including obstetric services, to all communities is required to reduce the incidence of umbilical hernia,[5] facilitate its early treatment, and prevent the occurrence of life-threatening conditions such as ruptured uterus.[1,2]

References

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Single Suture

The kindest cut

It would now appear that male circumcision is going to become a routine way of approaching HIV prevention. The World Health Organization issued a report on 28 March 2007 recommending that the rate of male circumcision be increased in countries where HIV infection is highest. Studies in Kenya, Uganda and South Africa have recently shown that circumcised men are, on average, 60% less likely to contract HIV than uncircumcised men. Kim Dickson, coordinator of the joint WHO/UNAIDS working group that produced the report, says that promoting the procedure would have the greatest effect in countries where more than 15% of heterosexual men are HIV positive, but fewer than 20% are circumcised.

Swaziland, where 40% of adults are HIV positive, has held 2 'circumcision Sundays' on which hospitals have offered the procedure. But circumcision must not be seen as an alternative to condoms and reducing the number of sexual partners. Men should also abstain from sexual intercourse for 6 weeks after the operation to allow the wound to heal.

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