CASE REPORTS

Uterine Rupture In A Primigravida Presenting As An Acute Abdomen Post Delivery: A Case Report.

[1]MUSA, J, *FWACS*, [2]Misauno, *FWACS*

[1]Department of Obstetrics and gynaecology and [2]Department of surgery Jos University Teaching Hospital, Jos.

Abstract:

Background: *Spontaneous rupture of the uterus in primigravida is a rare event reported in the literature. Rupture of the uterus usually presents as an acute life-threatening condition with symptoms and signs that makes diagnosis relatively easy particularly when there is history of obstructed labour and other risk factors. A case of uterine rupture in a primigravida with clinical signs evolving insidiously post delivery is being reported.*

Method: *A review of the case record of a primigravida who developed acute abdomen post delivery and the relevant literature search was done with pubmed using, uterus, rupture, primigravida, oxytocin use, and vaginal delivery as key words.*

Result: *A 22-year old primigravida who had spontaneous vaginal delivery developed acute abdomen post delivery subsequently had a laparotomy for suspected intra abdominal abscess and was found to have ruptured uterus. Repair of the uterus was done and post operative recovery was uneventful. Subsequent history from the patient revealed previous termination of a 5 month pregnancy 3 years before.*

Conclusion: *This report highlights the need to suspect the possibility of uterine rupture as a differential diagnosis of acute abdomen post delivery particularly if there is past history of manipulations involving the uterus.*

Key words: *Primigravida, spontaneous vaginal delivery, acute abdomen, uterine rupture, laparotomy.*

Paper accepted for publication 20th April 2007

Introduction

Rupture of the uterus is one of the leading causes of maternal mortality in Nigeria and other developing countries[1,2]. Spontaneous rupture of the uterus in a primigravida is said to be extremely rare.[3,4]

Ruptured uterus in primigravida have been reported following unskilled manipulation of the uterus and injudicious used of oxytocin in labour.[5,6] There have been earlier reports of spontaneous uterine rupture in primigravidae because of undisclosed uterine surgeries[7,8]. These cases presented with suggestive clinical features of uterine rupture making early diagnosis and timely interventions possible. To the best of our knowledge uterine rupture in a primigravida following spontaneous vaginal delivery of a live fetus with clinical features evolving insiduosly is yet to be reported in the literature.

This case is being reported to alert practicing obstetricians of the possibility of uterine rupture as a differential diagnosis of acute abdomen post delivery particularly in 'primigravidas' with past terminations of pregnancy.

Case report

Mrs S. V, a 22 year old primigravida who had antenatal care at the Jos North Primary Health care centre, Jos, presented at the labour ward of the Jos University Teaching Hospital in established labour at 40 weeks gestation on the 27th April 2003.

On presentation, there was no vaginal bleeding and her vital signs were stable. There was a singleton fetus, in longitudinal lie and presenting cephalic. The fetal heart sound was heard on auscultation. The cervical dilatation was 8cm with a fully effaced cervix and a descent of 3/5. After 2 hours of admission in labour, the labour progressed and she had a spontaneous vaginal delivery of a life baby boy that weight 2.6kg, APGAR scores were 4 and 6 at first and fifth minute respectively. The placenta was removed by control cord traction. She had primary post partum haemorrhage and 2 units of whole blood were transfused in the post natal ward.

On the second day post delivery in the post natal ward she was found ill looking, and pale, febrile (T=37.7 $^{oC)}$. Her pulse rate was 130/minute, regular and full volume, her blood pressure was 120/70MMHg. Abdominal findings on inspection were generalized tenderness, guarding and rebound tenderness. The bowel sounds

Correspondence: ***MUSA, J.*** *E-mail-drmusaj@yahoo.com.*

were hypoactive. Based on above findings, an assessment of puerperal sepsis was made and she was managed conservatively with intravenous antibiotics and fluids. Her condition did not improve despite above management. The abdominal distension and pain progressed with associated vomiting and diarrhea.

Investigations done showed normal urea and electrolytes, creatinine and liver function tests. Her Packed cell volume was 29%. Ultrasound scanning of the abdomen and pelvis showed a slightly bulky empty uterus. There was fluid collection in the pelvis and abdominal cavity. Based on above findings, a preoperative diagnosis of intraperitoneal abscess was made and she subsequently had an exploratory laparotomy. The findings at laparotomy were thickened peritoneal coverings, haemorrhagic peritoneal fluid, hypertrophic omentum with fibrin exudates binding loop of intestines. There was a posterior uterine rupture extending from the fundus to the posterior vaginal vault. There were placental tissues in the pouch of Douglas extending to the paracolic gutters. The placental tissues were removed and peritoneal lavage with normal saline was done. Repair of the posterior uterine rupture was done with continuous chromic 2 after refreshing the uterine edges.

Post operatively, she had 2 units of whole blood transfused and was maintained on intravenous fluids and antibiotics. She had an uneventful post operative recovery. Her post operative PCV was 33% and she was discharged home on the 11th post operative day to come for follow up after 1 week.

During the follow up visit the diagnosis was explained and on further enquiry she disclosed history of termination of a 5 month pregnancy in a private clinic 3 years before. The termination was complicated with abdominal pain and was transfused 2 units of blood. She was also given antibiotics during that period for fever and vaginal discharge. She was counseled on the risk of uterine rupture in subsequent pregnancy and advised to book early for antenatal care and delivery in her next pregnancy.

Discussion

It is widely acclaimed that the primigravid uterus is immune to rupture. This assumption had given obstetricians a false sense of safety regarding the use of oxytocin to augment labour in primigravida. A few cases of uterine rupture in a primigravida following injudicious use of oxytocin and uterine manipulation in labour has been reported in the literature[5,6]. The assumption that the primigravid uterus does not rupture is therefore being question and caution should be exercise in the management of labour in primigravida particularly those with undisclosed uterine surgeries[7,8].

One of the strategies for reducing maternal morbidity and mortality in uterine rupture is prompt diagnosis and timely intervention. This is possible if the patient presents with risk factors such as high parity, prolonged labour, and use of oxytocin or pervious uterine scar[9]. The case being reported had no clear risk factor for uterine rupture and oxytocin was not used in the management of her labour. The diagnosis of uterine rupture was delayed because of the fact the she was a primigravida and the symptoms mimicked those of puerperal sepsis. She was therefore managed conservatively until there was no improvement in her condition with worsening generalized abdominal pain/tenderness and fever. The diagnosis of uterine rupture was made at laparotomy as an incidental finding. To the best of our knowledge a case of uterine rupture following spontaneous vaginal delivery of a live baby with insidious onset of symptoms and signs as presented in this case report is yet to be reported in the literature.

The management of uterine rupture entails prompt resuscitation and repair with bilateral tubal ligation if the uterus is repairable otherwise a sub-total hysterectomy is done. This patient had a longitudinal rupture posteriorly and the uterine edges were refreshed and repaired. In view of her age and parity, bilateral tubal ligation was not done in this case but patient was counseled to book for antenatal care early in her next pregnancy. To invalidate the reproductive carrier of a young woman of low parity in our setting without consent may raise ethical questions.

In conclusion, practicing obstetricians should therefore consider the possibility of uterine rupture as a differential diagnosis of acute abdomen post delivery particularly in 'primigravidas' with previous termination of pregnancy.

References

1. Briggs ND. Maternal deaths in the booked and unbooked patients: University of Port Harcourt Teaching Hospital experience, Trop J Obstet Gynaecol,1988; SEI: 26-29.
2. Ochejele S, Adama O, Daru PH. Contribution of direct Obstetric complications to maternal deaths in Makurdi, North-central Nigeria. Trop J Obstet Gynaecol, 2005; 22: 37-38.
3. Ola RE, Olamijulo JA. Rupture of the uterus at the Lagos University Teaching Hospital, Lagos, Nigeria. West Afr J Med, 1998; 17: 188-193.
4. Konje JC, Odukoya OA, Ladipo OA. Ruptured uterus in Ibadan-a 12 year-review. Int J Gynecol Obstet, 1990; 32:207-213.
5. Ibekwe PC. Ruptured uterus in a primigravida: case report. Trop J Obstet Gybaecol, 2002; 19: 47-48.
6. Orji EO, Dayo AA, Malomo OO. Rupture of the pregnant uterus in an unbooked primigravida: a case report. Trop J Obstet Gynaecol, 2002; 49-50.
7. Welsh AW, Smith J. antenatal uterine rupture in a primigravida associated with undisclosed previous uterine surgery. Aust NZ J Obstet Gynaecol, 1999; 39:368-370.
8. Iraeis HM, Murlta AP, Alexander KA, Barnett BD. Spontaneous rupture of a primigravid uterus secondary to placenta percreta: a case report. J Reprod Med, 1998; 3: 233-236.
9. Lawson JB. Sequelae of obstructed labour. In Lawson JB, Stewart DB (eds) Obstetrics and Gynaecology in the Tropics and Developing Countries. London, Edward Arnold (pub), 1967;Pp 203-210.