DOI: 10.5958/2319-5886.2014.00047.2

International Journal of Medical Research
&
Health Sciences

www.ijmrhs.com Volume 3 Issue 4 Coden: IJMRHS Copyright @2014 ISSN: 2319-5886

Received: 4th July 2014 Revised: 11th Aug 2014 Accepted: 11th Sep 2014

Case report

SPONTANEOUS FUNDAL UTERINE RUPTURE IN A GRANDMULTIPARA; AN UNUSUAL SITE OF RUPTURE

*Adoke AU[1], Ukwu AE[1],Shehu CE,[1] Burodo A[1], Singh S[1]

[1]Department of Obstetrics and Gynecology, Usmanu Danfodiyo University Teaching Hospital (UDUTH), PMB 2370, Sokoto, Sokoto State, Nigeria

*Corresponding author email: aadoke@yahoo.com

ABSTRACT

Uterine rupture is an obstetric emergency and a catastrophe with attendant maternal and fetal morbidity and mortality. It is not uncommon in unscarred uterus, but commonly occurs in uterus with one or more previous scar. We present a case of rupture of the fundus of the uterus in a multipara at 34 weeks with previous history of repeated episode of retained placenta that was manually removed. Repeated manual removal of retained placenta may have resulted in infection, scarring and weakness of the uterine wall. This could predispose the patient to uterine rupture as the pregnancy advances.

Keyword: Fundus, Placenta, Scarring

INTRODUCTION

Uterine rupture is an obstetric catastrophe often complicated with maternal and fetal morbidity and mortality.[1,2,3] It is a major cause of direct maternal death encountered mostly in developing countries and an index of poor obstetric care in a woman's reproductive career. With worsening economic conditions, rising caesarean section rates, as well as a version for operative delivery, uterine rupture will continue to confront us in our daily clinical practice.

The incidence varies world over and tends to be higher in low resource settings like ours and very low in developed countries. Reported incidences averaging less than 0.4 in developed and is between 2.4 to 8.9 per 1000 deliveries in the low resource setting.[4-7] However, findings from other parts of Nigeria were quite a departure with values as high as 13 per 1000 deliveries reported[8]. In the USA, more than 85% are traumatic or happen in a scarred uterus[6]. In low resource settings like ours particularly in Africa and Sub-Saharan Africa, ruptures are mainly spontaneous and occur in uterus as a complication of labor. The major antecedent factors are poverty, ignorance, illiteracy, traditional practices, high parity, a lack of antenatal care, unsupervised delivery, poor infrastructure, delivery outside of a health institution, cephalo-pelvic disproportion and the injudicious use ofoxytocics[9]. Also, uterine rupture due to excessive fundal pressure in an unbooked primigravida has been reported.[10] Similarly, cases due overzealous oxytocin infusion[11] and attempted external cephalic version have also been reported. [12]

CASE REPORT

We present a 30yr old unbooked G5P4+1A3 at 34 weeks gestation. She was admitted on account of three days history of sudden spontaneous profuse bleeding per vagina and abdominal pain. Bleeding was bright red with passage of blood clot; however quantity reduced two days later and stopped on the

third day. She had no history of bleeding in early pregnancy. Her last three deliveries were complicated by retained placenta which was manually removed at a peripheral centre. She had no history of labor pains or drainage of liquor. There was no history of trauma or surgical procedure in the past. Abdominal pain was sharp initially then generalized dull achy in nature. She had stopped perceiving fetal movement which prompted her to report to an ultrasound centre three days after onset of her problems. The result of ultrasound showed an intrauterine fetal death at 32 weeks gestation. She was fully conscious, pale, but not in painful distress. Her pulse rate was 100 beats per minute, blood pressure - 130/70mmHg. Examination revealed irregularly enlarged abdomen, mildly tender, symphysio-fundal height was 35cm.The fetal parts were easily felt just beneath the anterior abdominal wall. The lie and presentation were difficult to ascertain. Fetal heart sound was absent. The cervix was posterior, 2cm long and cervical OS admit a tip of a finger. She had emergency laparotomy with the finding of a fresh stillborn fetus extruded through the fundus of the uterus and floating inside the peritoneal cavity. The uterus was well involuted about 16 week size with complete disruption of the fundus. There was no active bleeding. Hemoperitoneum was about 1.2L of blood. A subtotal hysterectomy was performed. She had a smooth postoperative recovery period and was discharged home on the seventh day. Figures 1&2 summarize the intra-operative finding.

Fig 1: Shows a fresh stillbirth fetus

DISCUSSION

The incidence of ruptured uterus remains high in Africa compared to Europe. In Nigeria higher values have been recorded particularly in the north. The age and parity distribution of this patient is similar to that found in other studies with ruptured uterus.

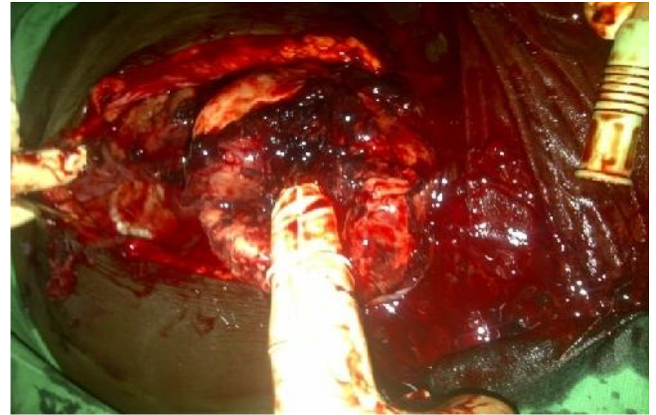

Fig 2: Show site of uterine rupture at the fundus of the uterus. The wound edges are covered with clots and necrotic tissues with no active bleeding

Patients with a ruptured uterus tend to be multiparous and of advanced maternal age as was the case in this index patient. The most likely predisposing factor in this case was ignorance, illiteracy, high parity, previous unsupervised home delivery and repeated manual removal of placenta. Vaginal bleeding, abdominal pain/tenderness and shock are the common clinical features seen in ruptured uterus. These features were also seen in this patient, however, she was not in shock about two days after onset of symptoms. The fetus was extruded through the fundus of the uterus and there was minimal bleeding from the edges of rupture. The wound edges were covered with necrotic organized sloughs with no evidence of bleeding vessel. These are a departure from the usual severe massive hemorrhage that is usually seen in cases of uterine rupture. Perhaps fibrosis at the fundus from repeated manual removal of placenta could have accounted for these, since fibrosed tissues have poor blood supply. Reports have shown that unscarred uterus constituted a large number of uteri that ruptured spontaneously, which is in tandem with findings in other studies[13]. Fetal malpresentation, obstructed labor, oxytocin abuse and multiparity were commonly associated factors[14]. The anterior wall of the uterus was the commonest site affected and tubal ligation was the surgical procedure in 36% of cases[3]. In this patient the possible mechanism of rupture was likely due to repeated retained placenta and manual removal of placenta. This could have resulted in repeated injury, infection and inadvertently weakness of the uterine wall with

resultant exuberant scar tissue formation. Therefore, we postulate that in this case the fundus of the uterus was the site of rupture presumably due to stretching of the scarred fundus by the fetus. These would have likely lead to thinning of the scar and subsequent rupture of the fundus.

CONCLUSION

Uterine rupture may occur unnoticed, particularly in unscarred uterus. Patients with repeated episodes of retained placenta who had manual removal are likely to have a spontaneous uterine rupture. High index of suspicion should be entertained in this group of patients.

ACKNOWLEDGEMENT: Many thanks to the Feto-maternal team at UDUTH and all those involved in the care of this patient.

Conflict of Interest: Nil

REFERENCES

1. Groen GP. Uterine rupture in rural Nigeria. Review of 144 cases. Obst. Gynaecol. 1974; 44(5): 682-7.
2. Ahmed Y, Shehu CE, Nwobodo EI, Ekele BA. Reducing maternal mortality from ruptured uterus--the Sokoto initiative. Afr J Med Sci. 2004; 33(2):135-8.
3. Robert AO, Ekele BA. Rupture uterus: Halting the scourge. Trop J Obstet Gynaecol 2002; 19:1 - 3.
4. Konje JC, Odukoya OA, Ladipo OA. Ruptured uterus in Ibadan. A 12 year review. Int. J. Obstet. Gynaecol. 1990;32: 207-13.
5. Johanson R. Obstetric Procedures. In: Edmonds DK, (ed.). Dewhurst's Textbook of Obstetrics and Gynecology for Postgraduates. 6th ed. Blackwell Scientific Publications, London. 1999;323-24.
6. Agboola A. Rupture of the uterus. Nig. Med. J 1977; 12: 19-21.
7. Ola ER, Olamijulo JA. Rupture of uterus at the Lagos University Teaching Hospital, Lagos, Nigeria. West African Journal of Medicine. 1998; 17(3): 188-93.
8. Ekele BA, Audu LR, Muyibi S. Uterine Rupture in Sokoto, Northern Nigeria - Are We Winning? Afr. J. Med. Sci.2000; 29 (3-4): 191-93.
9. Aboyeji AP, Ijaiya MD, Yahaya UR. Ruptured uterus: a study of 100 consecutive cases in Ilorin, Nigeria. J Obstet Gynaecol Res. 2001; 27(6):341-8.
10. Nnadi D, Nwobodo E, Ukwu A, Airede L. Uterine rupture in a primigravida: A case report. Sahel Med J 2006;9:71-3.
11. Orji EO, Dayo AA, Malomo OO. Rupture of the pregnant uterus in an unbooked Primigravida: A case report. Trop J Obstet Gynaecol 2002;19:49-50.
12. Ibekwe PC. Rupture uterus in a primigravida: A case report. Trop J Obstet Gynaecol 2002; 19:47-8.
13. Faleyimu BL, Makinde OO. Rupture of the gravid uterus in Ile-Ife, Nigeria. Tropical Doctor. 1990;20:188-89.
14. Lawson JB. Sequelae of obstructed labor. In: Lawson JB, Stewards DB. Editors. Obstetrics and Gynecology in the tropics and developing countries. Edward Arnold Publishing Ltd. London, 1967. 203-18.