Spontaneous Separation of Classical Uterine Scar

Maj U Prasad*

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Introduction

Uterine rupture is a documented complication of pregnancy and labour which carries high risk to the mother and fetus. Separation/ rupture of vertical (classical) scar are more likely to result in severe hemorrhage with increased perinatal morbidity and mortality. It is also seen that it usually requires hysterectomy [1]. This is a case of a previous classical cesarean section (CS) in which the scar spontaneously separated in 37th week of subsequent pregnancy before the onset of labour.

Case Report

A 28 year old patient, gravida 2 para 1, with previous CS and low-lying placenta was admitted at 37 weeks of gestation for safe confinement. Her routine investigations were within normal limits and an ultrasound at 35th week of gestation showed normal fetal growth with cephalic presentation and a posteriorly placed low-lying placenta (placenta praevia type1).

After about six hours of hospitalization, patient suddenly developed pain in umbilical region. Pain was continuous and there were no uterine contractions. On examination, the patient was conscious and stable. Pulse was 84/minute, good volume and blood pressure was maintained at 130/70 mm Hg. Per abdomen, both the uterine height and contour were maintained. Fetal heart rate (FHR) was also in normal range (140-150/min) and regular. However tenderness was present around the umbilicus. There was no bleeding per vaginum. On per vaginal examination cervix was uneffaced and internal os was 1cm dilated. Membranes were intact. A provisional diagnosis of scar tenderness was suspected and patient was taken up for emergency CS.

In operation theatre, about an hour later patient was reassessed. No change in previous findings was detected and the patient was given subarachnoid block. But soon after anaesthesia, patient went into hypotension (BP- 80/40 mm Hg) and FHR started to dip to 45-50 bpm. Immediate laparotomy was carried out. Intact amniotic sac with fetus inside was found as soon as peritoneum was opened, since

uterine cavity was already completely communicating with the peritoneal cavity. A large hemoperitoneum (1.5-2 litres of blood) was noted. A severely asphyxiated baby (male, 2.8 kg, Apgar score- 3, 5, 7 at one, five and ten minutes respectively) was delivered by rupturing the amniotic sac. Placenta was delivered intact with membranes. A fully separated (ruptured) 13 – 14 cm long previous classical uterine scar was seen extending from just below the fundus upto the uterovesical fold. Uterus was then repaired in three layers (Fig.1). Uterus got well contracted in the meanwhile and there was no post partum hemorrhage. There was no need for hysterectomy. Bilateral tubal ligation was done. Complete haemostasis was achieved and a pelvic drain was put. The blood loss was replaced with a total of three units of blood. Her preoperative haemoglobin was 11.6 gm% and postoperative value was 9.8 gm % after blood replacement.

Mother made an uneventful recovery in ten days. The baby developed neonatal jaundice (total bilirubin rose to a maximum of 14.6 gm%) and recovered in twelve days. Both were discharged on the twelfth postoperative day.

Discussion

Surgery involving upper segment like hysterotomy, classical CS, myomectomy, previously repaired uterine

Fig. 1 : Uterine rupture

*Graded Specialist (Obstetric & Gynaecology), MH, Nasirabad.

rupture, metroplasty and lower segment CS with upward or inverted T/J- shaped extension is more prone to uterine rupture, during pregnancy and at term, even before labour ensues [1,2]. With prior cesarean delivery, the American College of Obstetricians and Gynecologists cited classical scar rupture in about 4-9% of cases [1, 3].

In this case, previous classical CS scar had got spontaneously and completely separated at 37th weeks of pregnancy before patient had gone into labor. There were no obvious signs of scar dehiscence or rupture (no signs/symptoms of shock, no fetal distress or maternal tachycardia). Decision for emergency CS was taken in view of post cesarean section, term pregnancy with low-lying placenta with suspected scar tenderness. Abdominal tenderness was unlike the kind of lower segment scar tenderness, since it was not in hypogastrium and not associated with fetomaternal distress. Findings of scar separation were subsequently discovered peroperatively. Delay in diagnosis could have been life threatening for both the mother and the baby.

According to the current protocol, patient with prior uterine ruptures or classical or T- shaped incisions should ideally be delivered by cesarean, on achievement of fetal pulmonary maturity and prior to onset of labor. Such women must be warned of the hazards of unattended labor and signs of possible uterine rupture [4]. In this case, since documents of previous CS (indication and

the type of previous CS scar) were not available, patient was not observed for VBAC.

In modern obstetrics, classical CS is obsolete except for rare reasons. Consequently, the fact that previous CS in this case was of classical one was discovered only intraoperatively. Such patients must be admitted at 36 weeks so that pre-labour spontaneous scar separation, scar dehiscence or rupture can be detected at the earliest and managed [4].

Pre-labour scar separation, silent or asymptomatic ruptures should be kept in mind and prompt action must be taken to prevent perinatal morbidity and mortality.

Conflicts of Interest

None identified

References

1. Cunningham F, Gary G, Norman F, Leveno J Kenneth, Gilstrap III Larry C, Hauth John C, et al. Williams Obstetrics. 22nd edition. New York, McGraw Hill 2001; 647-8.
2. Golan A, David MP. Birth Injuries. In: Iffy L, Appuzio JJ, Vintzileos AM, editors. Operative Obstetrics. 2nd edition. New York : Mc Graw Hill, 1992; 370-85.
3. Endres L K, Barnhart K. Spontaneous second trimester uterine rupture after classical cesarean. Obstet Gynecologic 2000; 806-8.
4. Cunningham F, Gary, Bloom Steven L, Leveno J Kenneth, Gilstrap III Larry, Hauth John C, Wenstrom Katharine D. Williams Obstetrics. 22nd edition. New York, McGraw Hill 2005; 611.

Journal Scan

Vertrees A, Wakefield M, Pickett C, Greer L, Wilson A, Gillern S. Outcomes of primary repair and primary anastomosis in war-related colon injuries. J Trauma 2009;66:1286-91.

The role of primary repair (PR) of modern day war-related colon injuries remains controversial. Retrospective review of medical records of combat-wounded soldiers with colon injuries sustained during Mar 03 to Aug 06 was conducted at Department of Surgery, Walter Reed Army Medical Centre, Washington, and USA. Injuries were analyzed according to location: right (n = 30), transverse (n = 13), and left (n = 24) sided colon injuries. Two-tailed Fisher's Exact or chi tests were used for statistical analysis. Seventy-seven soldiers returned to Walter Reed Army Medical Centre with colon injuries suffered during Operations Enduring Freedom and Iraqi Freedom. Twelve patients with minor colon injuries were excluded. The remaining 65 patients (mean age, 28 ± 7 years) sustained 67 colon injuries from secondary blast (n = 38); gunshot (n = 27); motor vehicle crash (n = 1) and crush injury (n = 1). Patients arrived at Walter Reed Army Medical Centre five days (range 2-16 days) after injury and damage control operations (n = 27, 42%), and were

hospitalized for a median of 22 days (range, 1-306 days). Follow-up averaged 311 days (median, 198 days). PR was attempted in right (n = 18, 60%), transverse (n = 11, 85%), and left (n = 9, 38%) sided colon injuries. Delayed definitive treatment of colon injuries occurred in 42% of patients. Failure of repair occurred in 16% of patients and was more likely with concomitant pancreatic, stomach, splenic, diaphragm, and renal injuries. Overall morbidity for ostomy closure after primary ostomy formation was 30%, but increased to 75% for ostomy closure after primary anastomotic or repair failure. The authors concluded that primary repair of war-related colon injuries can be performed safely in selected circumstances in the absence of concomitant organ injury. Delayed anastomosis can often be performed after damage control operations once the patient stabilizes. Ostomy closure complications are more likely after anastomotic failure

Contributed by

Col MM Harjai

Senior Advisor (Surgery & Paediatric Surgery), Command Hospital (SC), Pune – 40.