Uterine Rupture during Trial of Labor after Cesarean Section

Abstract Type: Case Report/Case Series
Matthew W. Isenhower, M.D; Joanne C. Hudson, M.D.
VCUHS

Introduction: Due to the high rate of c-sections there is resurgence in TOLAC (1). One of the major complications is uterine rupture. This is a situation in which the anesthesiologist may be called before the Obstetrician. It is therefore important for an anesthesiologist to distinguish labor pain from that of a uterine rupture. We present a case to illustrate the presenting symptoms of a uterine rupture.

Case Report: A 26yo G2P1 @39w1d arrived in labor. During her first pregnancy, she developed active phase arrest which resulted in a LTCS. Later an epidural was placed using a test dose and maintained with infusion of 0.125% bupivacaine with fentanyl 2 ug/ ml at 8mL/hr to achieve a level of T10. Pitocin was started, and after four hours her cervix was dilated to 7 cm. Seven hours later she was comfortable with an epidural level at T10 and an unchanged cervical exam.

Minutes later, anesthesia was notified of a new persistent severe pain in the patient's RUQ and R shoulder. The patient was writhing in pain, with BP 106/60 and mild tachycardia. The Fetal heart rate was 150 with moderate variability and infrequent variable decels. Surgical epidural dosing was initiated while the obstetrician was called to evaluate. The Obstetricians decided for an urgent Cesarean section for active phase arrest. A fluid bolus was started along with second 16g IV. A total of 17 ml of 2% lidocaine produced a surgical T4 level, and the patient complained of only a mild R shoulder ache at the time of incision. Upon opening the fascia, the L arm of the fetus was seen protruding through a tear in the R uterine wall. The baby was delivered with APGARs of 2 and 9, and a mild transient L arm swelling. Approximately 25 minutes passed from onset of RUQ pain to delivery. Her hemoglobin dropped from 13 to 9.1, and the shoulder pain gradually resolved over the next day. The patient was discharged home on POD#2.

Discussion: Overall TOLACs are about 75% successful in vaginal delivery (2). However the combination of previous Cesarean for failure to progress, no previous vaginal delivery and induction of labor, results in <50% success rate (3). Uterine rupture rates vary with both previous uterine incision type and augmentation (2). According to one study spontaneous labor in TOLAC has a 0.4% risk of rupture overall; 1.1% with oxytocin alone; and 1.4% with addition of prostaglandins(4). The most common sign of uterine rupture is FHT change (70%), but often a new constant abdominal pain is seen(1,2). Early recognition and treatment is essential in managing this situation.

References
2. Welischar, J. TOLAC; www.uptodate.com, Sept 2010