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A baby chooses to emerge out from the posterior cervical tear in a prostaglandin induced labor

Geeta Gurung, Sapana Amatya, Archana Amatya, Akanchya Rana, Ashma Rana, Akinchan Kafle.
TU Teaching Hospital, Kathmandu, Nepal.

Abstract

A case is described where a live baby chooses to come out, tearing apart the posterior cervix as a result of effective uterine contractions in association with closed external cervical os in a prostaglandin E_2 induced, postdated pregnancy in a primigravida with neonatal survival.

Key words: Prostaglandin E_2, Cervical tear, neonatal survival.

Introduction

Prostaglandin E_2 is a powerful oxytocic agent that reliably initiates labor, even in the presence of an unripe cervix (uninducible cervix). Prostaglandin E_2 (PGE_2) 500 mg gel has been applied intracervically for the initiation of cervical ripening before the induction of labor with good outcome.[1] It reliably initiates labor by increasing intrauterine pressure even when the cervix is resilient to do so. In our case, this mechanism perhaps, led to a consequence, in which good uterine contraction ultimately forced out the baby through an unusual posterior cervical tear and thus shares partial similarities to an unusual case already highlighted.[2]

Case

A 22 year old (IP no. 356284) booked primigravida was admitted in the maternity ward of TU Teaching Hospital at 41 weeks of pregnancy for induction of labor as per routine protocol of the department. She was first seen at first trimester of pregnancy and her antenatal period remained uneventful throughout. All the routine antenatal investigations including second trimester anomaly ultrasound scan were normal. There were total eight visits, including her last antenatal check up at 40^{+5} weeks. She was admitted for induction of labor as per the department protocol when labor did not occur spontaneously at 41 weeks of pregnancy, based on last menstrual period, since her period was regular. On admission her vitals were normal.Uterus was term size, cephalic, 3/5 palpable abdominally with no uterine contraction with the fetal heart rate (FHR) of 148 beats/min. On per vaginal examination cervical os admitted tip of finger, firm, central, uneffaced and unyielding type of cervix and head was at -1 station. Pelvis was adequate. Because of poor Bishops score and normal reactive cardiotocography, it was decided to ripen the cervix with Prostaglandin E_2 gel (Cerviprime gel). So, first dose of Cerviprime gel 500 mg was instilled intracervically at 4:15 pm. Following cerviprime instillation, monitoring was continued for half an hour and she was transferred back to maternity ward. A call was attended for increased labor pain after 1hr 45min at 6:00 pm. At that time contractions were 2/10 min lasting for 25-30 seconds, FHR was 140 beats/min, cervical os was 1cm dilated, 30% effaced, soft, central and head station was -1. After 3½ hrs of cerviprime instillation, at 7:45 pm, the uterine contraction increased therefore she was transferred to labor room. At that time head was visible at perineum with bulging bag of membrane. To facilitate labor, artificial rupture of membrane (ARM) was done and clear liquor was obtained. Baby was delivered at 8:07 pm with good Apgar score. Active management of third stage of labour was performed and uterus contracted well after delivery of placenta. There was trickling of fresh blood from vagina, despite contracted uterus. At exploration of cervix, suspecting cervical tear, the external cervical os was just 1.5 cm dilated or non parturient.

Correspondences
Geeta Gurung. FCPS, DGO
Assoc Prof, Dept of Ob/Gyn, TU Teaching Hospital, Kathmandu, Nepal
Email. gurunggeeta@hotmail.com

Posterior to cervix, at the junction of posterior lip of the cervix and vagina, a curvilinear, bucket handle cervical tear was noted (Fig. 1 Schematic diagram). Through this passage a 3500 gm baby had emerged out, which was a matter of surprise. The tear was repaired amidst minimal vaginal bleeding applying interupted stitches with 2-0 chromic catgut under local anaesthesia and intravenous sedation with combination of diazepam and pentazocine. Postpartum period was covered with oral antibiotics, a combination of cephalexin (cephadroxil) and metronidazole. Postpartum period remained uneventful and patient was discharged on fourth day. At the end of six weeks on puerperal follow up, the cervix had healed completely with no evidence of any scar. She was counseled for long term family planning with norplant and caesarean delivery in the next pregnancy. Mother and baby were both normal 10 months post partum and the patient was not practicing any method of contraception.

Comment

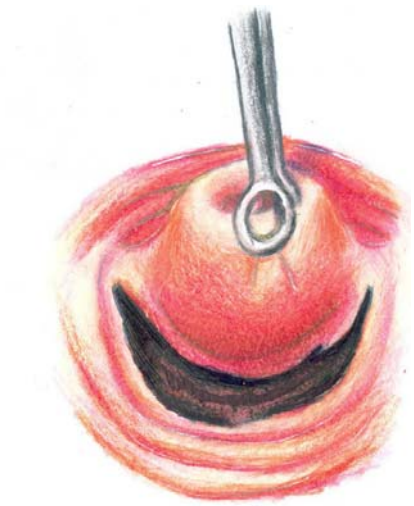

Fig 1: Schematic picture of bucket handle tear (courtesy: Dr. Akinson Kafle)

This is a type of bucket handle cervical tear. Prostaglandin administration has also resulted in cervico-vaginal fistulas, lateral tears and uterine rupture, later needing hysterectomy with poor perinatal outcome.[3,4] We have also encountered a case of inner myometrial laceration with its use, causing a severe postpartum hemorrhage like a case described in literature.[5]

Such cases designate potential complication of prostaglandins in labor induction, thus implying a cautious use in case of scarred uterus.[4]

There was no racial difference in the occurrence of cervical tear and it frequently complicates labor following cerclage procedure.[6,7]

Cervical tear is an important complication of labor and has been responsible for major post partum hemorrhage.[8] This is possible when the cervical tear is unidentified in the first place and then not sutured. Even after repair, hematotrachelos and hematometra, some of the inadvertent complication that may follow must be considered necessary to be looked for.[9]

Conclusion

Birth of the fetus through posterior cervical tear is an unusual complication of prostaglandin induced labor and such an occurrence, even though it is a very rare possibility, must be thought of while inducing labor.

Reference

1. Herabutya Y, O-Prasertsawat P. Induction of labor using intracervical prostaglandin E2 gel: the outcome. J Med Assoc Thai 1991 Nov; 74(11):491-7.
2. Uchil D, Kumakech W, Jolaoso A. Spontaneous vaginal delivery through an unusual posterior cervical tear. J Obstet Gynaecol 2006 Apr; 26(3):263-4.
3. Can Anaesth Soc J. 1984 Jan; 31(1):80-2. Keller F, Joyce TH 3rd. Uterine rupture associated with the use of vaginal prostaglandin E2 suppositories.
4. Raskin KS, Dachauer JD, Doeden AL, Rayburn WF. Uterine rupture after use of a prostaglandin E2 vaginal insert during vaginal birth after cesarean. A report of two cases. J Reprod Med. 1999 Jun; 44(6):571-4.
5. Abu-Rustum RS, Abu-Rustum SE, Abdo BK, Jamal MH. Inner myometrial laceration causing a massive postpartum hemorrhage: a case report. J Reprod Med. 2006 Feb;51(2):135-7.
6. Hopkins LM, Caughey AB, Glidden DV, Laros RK Jr. Racial/ethnic differences in perineal, vaginal and cervical lacerations. Am J Obstet Gynecol. 2005 Aug; 193(2):455-9.
7. Parikh R, Brotzman S, Anasti JN. Cervical lacerations: some surprising facts. Am J Obstet Gynecol. 2007 May; 196(5):e17-8.
8. Mousa HA, Cording V, Alfirevic Z. Risk factors and interventions associated with major primary postpartum hemorrhage unresponsive to first-line conventional therapy. Acta Obstet Gynecol Scand. 2008; 87(6):652-61.
9. Sherer DM, Khoury-Collado F, Hellmann M, Abdelmalek E, Kheyman M, Abulafia O. Transvaginal sonography of hematotrachelos and hematometra causing acute urinary retention after previous repair of intrapartum cervical lacerations. J Ultrasound Med. 2006 Feb; 25(2):269-71.