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## Cervical Tear: A rare route of delivery: Case report

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### Abstract

Cervical laceration is one of the complications of vaginal delivery, but delivery through a cervical os is a rarity. Very few cases have been reported so far. Most of the reported cases are not much comparable to ours, where a multiparous woman had a spontaneous vaginal delivery through a posterior cervical tear and an undilated external cervical os, in the absence of any known risk factors.

**Keywords:** proximal tibia fracture, MIPPO, knee stiffness, wound dehiscence

### 1. Introduction

Cervical injuries represent a frequent morbidity associated with vaginal delivery.<sup>[1]</sup> Most of the cervical tears are in the lateral aspect of cervix, while some sustain a posterior transverse semicircular cervical tear, mimicking annular cervical detachment<sup>[2]</sup> Cervical tears are responsible for major postpartum haemorrhage. It can be due to the fact that they remain unidentified and hence not sutured. Even after repair, hematotrachelos and hematometra are some of the complications that may follow.<sup>[4]</sup> Most of the times, spontaneous vaginal delivery through cervical tears has been reported in patients with some significant obstetric or medical history or surgical history of cervical intervention. We have reported a case of spontaneous vaginal delivery through a cervical tear with an undilated external cervical os.

### 2. Case Report

A 30 years old G2P1 (unbooked case), was admitted in the labour room of Sri Guru Ram Dass Institute of Medical Sciences and Research, Amritsar, in active phase of labour. It was a spontaneous singleton pregnancy which had been uneventful so far. No history of any cervical intervention or precipitate labour was identified in the past. On per abdominal examination, fundal height corresponded to 36 weeks with regular and good uterine contractions. Fetal heart rate was found to be regular with a rate of 136 beats per minute. On digital examination, patient was found to be 7-8 cm dilated with absent membranes and vertex at +2 station. The patient was shifted to second stage labour room and intravenous line secured with ringer lactate on flow. Regular monitoring of fetal heart sound was done. Patient delivered spontaneously after 1 hour of the initial examination. Baby cried immediately after birth. Placenta delivered spontaneously within 5 minutes of delivery through the posterior cervical tear. (figure 1). After the placental separation and delivery, unusual amount of blood loss was noted. On examination, uterus was found to be well contracted. Local exploration revealed intact vaginal walls with bleeding angle of the posterior cervical tear. (figure2). It was a 4-5 cm annular tear on the posterior lip of cervix, extending from 5 o'clock to 8 o'clock positions while the external os admitted only tip of finger. The tear had provided a gateway for the fetus and placenta, causing unusual amount of blood loss through the tear after delivery. Hemostasis was achieved after repairing the tear with continuous absorbable suture vicryl no 1. The permeability of the external os was examined digitally and further indicated by the spontaneous lochial discharge through the os. The patient received oxytocin infusion post-partum and 1 gm intravenous ceftriaxone. After an uneventful postpartum period, patient was discharged on the third day postpartum.

### 3. Discussion

Cervical tear, with an incidence of 1.2% of vaginal deliveries, is one of the undesired complications of labour and one of the root cause of postpartum haemorrhage.<sup>[5]</sup> One case of spontaneous vaginal delivery through an unusual posterior cervical tear was reported

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by Uchida *et al* in 2006. [6]

Another case was reported by Oyelese *et al* in 2001, in which an extensive posterior cervical tear was found after four doses of misoprostol given for induction. [7]

Important risk factors are nulliparity, precipitate labour, operative vaginal delivery and cervical interventions. [8]

Induction of labour also increases the probability of cervical damage. [9]

Fibrosis of the cervix, leading to increased resilience and hence failure of external os to dilate, is one of the possible explanations of cervical tears.

There are reports of vaginal delivery through these lesions, leading to extensive defects in vaginal fornix, bladder or lower uterine segment.

In our case, in contrast to the previous studies, no significant medical history or surgical intervention of the cervix was noted

in the past.

Being a spontaneous vaginal delivery, no history of labour induction or augmentation was seen in our case.

Baby weight >3500grams at birth has been associated with higher rates cervical tear [10] but in our case, the birth weight of neonate was 3 kg.

Precipitate Labour has also been identified as one of the risk factors for cervical tear [11]

This could be a possible explanation of cervical tear in our case as the patient reached the hospital when she was in second stage of labour and hence no labour record was available.

Regardless of the etiology, this complication could be prevented by performing a caesarean section on recognition of external os rigidity with good and regular uterine contractions and failure of cervical dilatation.



**Fig 1:** Delivery of placenta through cervical tear



**Fig 2:** Suturing of posterior cervical tear

#### 4. Conclusion

In nulliparous women, cervical effacement precedes cervical dilatation. Hence, strict and careful monitoring of labour should be done. Completion of cervical effacement with good uterine contractions and a rigid cervical os is an alarming sign. This may indicate an imminent cervical tear. Hence a caesarean section should be considered immediately to prevent complications.

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