



Cervical Necrosis and Detachment: A Rare Complication of Labor

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Introduction

Annular detachment of the cervix is a rare complication of labor. It has been suggested that the cervical lips get compressed between the pubic symphysis and the fetal head leading to necrosis [1].

Case Report

The present case illustrates a 24-year-old primigravida with uncomplicated term pregnancy who presented in early labor. She had a tardy progress of labor despite doing amniotomy and oxytocin augmentation. She was ultimately prepared for cesarean section at 4 cm dilatation in view of arrest of dilatation, after being in labor for 24 h. Intraoperatively, there were features of obstruction with edematous pulled up bladder and ballooned out lower uterine segment. Baby was 3 kg in weight and was lying in occipito-posterior position. The baby cried immediately after delivery and the APGAR score was 8,9,9. The patient developed multiple spikes of fever from postoperative day 3. A per speculum and per vaginam examination revealed a hanging necrotic mass in place of cervix which was attached to the irregular edge of lower uterine segment above, at 3 o'clock and 9 o'clock positions, with small tags of approximately 5 mm. (Fig. 1).

Ultrasound was suggestive of an ill-defined cervix with a heteroechoic collection of size 1.8 × 1.9 cm, anterior to cervix, with fine air foci and no internal vascularity. The findings were corroborated with MRI which demonstrated irregular outline and morphology of both anterior and posterior

lips of cervix, as marked by arrows in the images provided. However, there was a definite breach anteriorly communicating with the anteriorly placed collection, marked by * in the image (Fig. 2).

A final diagnosis of pressure/ischemic necrosis of the cervix was made. The patient's antibiotics were stepped up to which she responded and her necrotic cervical tag was spontaneously shed off eventually. Patient was discharged on post-op day 16 in satisfactory condition along with her baby.

Discussion

Annular detachments of the cervix have mainly been reported in primigravidae with prolonged labor. Possible etiological factors described in the literature include mild cephalopelvic disproportion resulting in transverse or posterior position of the fetal head and faulty per vaginam examinations leading to holes in the edematous soft posterior lip of the cervix which may extend further laterally resulting in detachment [1]. However, the exact mechanism for this complication is still unknown.

In the present case, the most likely cause for ischemic pressure necrosis of the cervix may be an unyielding cervix with cephalopelvic disproportion and prolonged labor resulting from persistent occipitoposterior presentation. However, the authors acknowledge that a patient landing in such a complication while being under observation is not desirable. A case series of 55 cases of annular detachment of cervix revealed that more than 90 percent of cases had an average labor duration of 58 h [2]. Cervical detachments can lead to many complications in future pregnancy like recurrent abortions, preterm deliveries and intrapartum vaginal bleeding [3]. It has been suggested that offering an abdominal cerclage before next pregnancy may prevent complications resulting from cervical insufficiency [3].

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Fig. 1 Per speculum examination showing a necrotic mass in the vagina

Fig. 2 Sagittal T2W **a** and post contrast T1W **b** MRI images show abnormal morphology and signal intensity of the cervix (white arrow) with a collection noted anterior to it (*). UB urinary bladder



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Declarations

Conflict of interest There is no conflict of interest among the authors.

Informed Consent An informed consent was taken from the patient.

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