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**Research Article**

# A RARE CASE OF INTRAPARTUM RUPTURE AT THE CERVICOVAGINAL JUNCTION IN THE UNSCARRED UTERUS

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**A B S T R A C T**

Rupture of the uterus is a rare catastrophic event associated with high morbidity and mortality. Major risk factor for rupture is scarred uterus mainly with the previous caesarean but it can occur in some cases with an unscarred uterus. We hereby report a case referred to our institution as gravida 3 para 1 abortion1 with prolonged labour and nil draining liquor. The patient was taken up for emergency LSCS, and surprisingly an unusual transverse tear was noted at a cervicovaginal junction of about 8 centimetres exactly 6 centimetres below the incision line over lower uterine segment while examining the bladder flap. The purpose of presenting this case is to understand the importance of proper medical care through examination of the lower segment below the bladder flap in all cases of caesarean section and the need of definitive surgeries in order to save the life of the patient.



## INTRODUCTION

In 1875 Bandl first, describe uterine rupture. (1). Rupture of the uterus is a rare and catastrophic complication that is associated with high maternal and fetal mortality. The incidence of rupture of the uterus is more in developing countries as compared to developed countries (2). Rupture of the unscarred uterus in extremely lower part of a lower segment of the uterus is a highly rare phenomenon. The commonest risk factor for the uterine rupture is previous caesarean section. The other risk factors associated with a non-scarred uterus are obstructed labor, multiparity, and use of uterotonic drugs, placenta percreta and rarely intrauterine manipulations such as internal podalic version and breech extraction. Early diagnosis and intervention will significantly improve the prognosis (3).

### *Case Report*

A 34 years female gravida 3-para1 abortion 1 with 1 live issues at 40.1 weeks of gestation referred to our institution by a private hospital in view of dry labour with active bleeding per vagina. She had an ultra-sonographic report done at 8 months suggestive of the single live intrauterine fetus at 36 weeks of gestation, adequate liquor with placenta located at the fundus. On detailed history, it was noted that the patient was in labor for more than 18 hours with leaking per vagina for more than 12 hours. According to her augmentation of labor done, as consent taken there for augmentation. The patient also gave a peculiar history of severe pain during PV examination.On general examination, vitals were stable.

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On abdominal examination, uterus was term size. Fetal heart rate was regular with 126 beats/minute with three to Four Contractions lasting for more than 30 seconds. Head was one-fifth palpable.

On local examination, oedematous vaginal walls have seen after separating labia. Bleeding was present. On per vaginal examination, the cervix was fully dilated and fully effaced. Station was at zero with Grade 3 moulding and rotation was not complete. Pelvis assessment was poor because the patient was not cooperative. The decision for emergency caesarean section taken in view of prolonged labour and nil draining liquor.

Intra-operative, lower uterine segment was thinned out & stretched and liquor was absent. In addition, laceration seen when utero-vesical fold of peritoneum dissected. A term male baby delivered by giving high transverse incision with the birth weight of 3.1kg & APGAR of 7 & 8 at 1st and 5th minute respectively. Surprisingly at the cervico-vaginal 8 centimeters, the transverse tear was noted just six cm below the incision line in the lower uterine segment. Tear sutured meticulously with No. 0 vicryl in two layers. After achieving hemostasis uterus closed in layers and Intra-abdominal drain kept in situ. Abdomen closed in layers. The post-operative period was uneventful and the patient discharged on the ninth postoperative day

## DISCUSSION

Rupture of uterus a rare but catastrophic obstetric complication. Its overall incidence is 0.05%. Uterine rupture was commonly seen in scarred uterus. The incidence of its in-

unscarred uterus is 0.02%. In developed countries, it is even less that is 0.012 % (3). Rupture in the unscarred uterus can be spontaneous or sometimes due to trauma. The lower uterine segment in this patient is found to be distended and weakened (4).

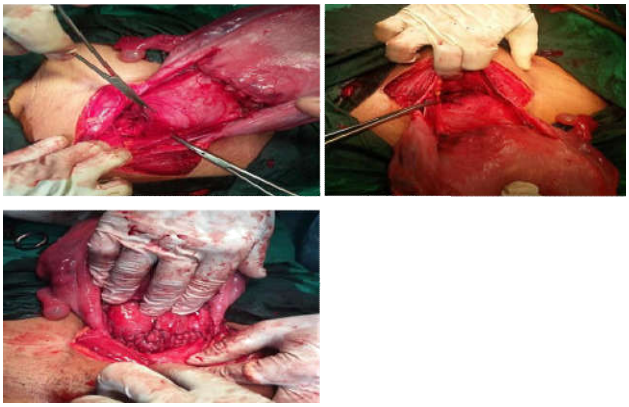

**Figure** legends-Gross image showing tear and after repair picture.

Risk factors include previous caesarian. The other risk factors associated with rupture in unscarred uterus include obstructed labor, Grand multiparity, use of uterotonic agents for labor induction or augmentation, breech extraction, macrosomia, advanced maternal age, uterine anomalies and intrauterine manipulation (3). The rupture in the unscarred uterus is more often in grand multipara and with advanced maternal age when obstruction of labor is there and its neglected (1).

Uterine rupture of an unscarred uterus is associated with significant morbidity and mortality. The most consistent early indicator of uterine rupture is the onset of a prolonged, persistent fetal bradycardia. Other signs and symptoms of uterine ruptures, such as abdominal pain, abnormal progress in labor, and vaginal bleeding, are less consistent and less valuable than bradycardia in establishing the appropriate diagnosis(5).

To minimize the risk of permanent injury surgical intervention after uterine rupture is essential. In our case, it was not typical uterine rupture but its rarest presentation of tear at cervicovaginal junction and the lower segment. Diagnosis of such type of tear is very important and one should not miss thorough examination of lower segment below the bladder flap.

## CONCLUSION

In our case the uterine rupture or lower segment, the tear could be due to repeated per vaginal examination and overstretching of lower segment due to prolonged labor that is quiet unusual. Although the rupture of the uterus in the previously unscarred uterus is very rare, it should be kept in mind as a differential diagnosis for bleeding per vagina. The purpose of presenting this case is to understand the importance of proper medical care through examination of the lower segment below the bladder flap in all cases of caesarian section and the need of definitive surgeries in order to save the life of the patient.

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Compliance with Ethical Standards

***Conflict of interest:*** There is no conflict of interest between the authors.

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Informed Consent Informed consent for publication of this report has been obtained from the patient.

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