



**Case Report**

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## A Fourth-Degree Domestic Accident-Induced Perineal Tear in A Two Days-Old Female Newborn

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**Abstract**

We report a case of a fourth-degree perineal tear triggered by a brick's fall in two-days-old female newborn. We successfully managed the injury by means of a surgical repair and an antibiotic coverage.

**Keywords:** Perineal tear, Newborn, Surgical repair.

**INTRODUCTION**

Perineal trauma in newborns may occur as a vaginal delivery accident but rarely as a non-obstetrical injury [1-3]. We report a fourth-degree domestic accident-induced perineal trauma in a 2 days-old female offspring.

**CASE REPORT**

On the second day of life, a female newborn, delivered through a normal vaginal birth without any apparent malformations, was injured when a brick fell on her pelvis. Upon her arrival at the emergency room, the newborn was conscious and in a stable hemodynamic state. A large and deep perineal wound was observed. Further exploration of the wound under general anesthesia revealed a right-sided perineal wound, lateral to the external genitalia, and extending from the clitoris' level down to the anus (Figure 1). The wound was so deep as to expose the right ischial tuberosity and to disrupt the anal sphincter at its 12 o'clock aspect. There was no hematuria and no visceral hernia or injury. There was no need for a colostomy. We intravenously injected ceftriaxone (100mg per kilogram of body weight, i.e. nearly 125mg twice daily as the baby weighted 2.650 kilograms) and infused metronidazole (30mg per kilogram of body weight, i.e. nearly 40mg twice daily as the baby weighted 2.650 kilograms) during 10 days. Besides the newborn underwent a perineal bath with a saline-diluted polyvidone twice daily for one week.

Surgical repair was performed by trimming and closing the tissues layer by layer, resulting in an anatomical reconstruction (Figure 2 and 3).

**Table 1:** RCOG Classification of Perineal tears 2007

1 <sup>st</sup> Degree	Laceration of vaginal epithelium or Perineal skin only
2 <sup>nd</sup> Degree	Involving of the Perineal muscles but the anal sphincter
3 <sup>rd</sup> Degree	Disruption of anal sphincter ( A: < 50% thickness of external sphincter torn; B: > 50% thickness of external sphincter torn; C: internal sphincter torn)
4 <sup>th</sup> Degree	Third degree tear with disruption of the anal epithelium as well

\*RCOG: Royal College of obstetricians and gynaecologists

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**Figure 1:** The perineal wound



**Figure 2:** The perineal wound during surgical repair



**Figure 3:** The wound after surgical repair

## DISCUSSION

Perineal tears are extremely rare in infants and newborns [1-4]. This case report presents a fourth-degree perineal tear caused by a domestic accident, classified according to the classification of perineal tears. (Table 1) [2].

Non-obstetrical perineal injury is extremely rare in newborn. To my knowledge, this the first ever-reported case domestic accident induced perineal trauma in a newborn. Isolated cases perineal injuries in newborns in utero, during caesarean section or artificial rupture of membranes have been reported [3-5]. Some authors have highlighted the severity and mortality associated with septic complications of perineal tears [6]. Immediate surgical management is crucial, depending on the degree of the lesion, and may involve the placement of a colostomy. Repair should be performed by an experienced operator in a well-lit operating room under anesthesia, using a layer by layer repair technique with absorbable sutures [7,8] and antibiotic administration is essential [3,5, 6, 8].

## CONCLUSION

Perineal tearing is a rare trauma in newborns. It requires an immediate surgical repair with an antibiotic coverage and daily perineal disinfection until it heals up as superinfection may be fatal.

## Conflict of Interest and Funding

The authors report no conflicts of interest in relation to this work.

## Consent for Publication

The patient's consent has been obtained for the publication and sharing of images.

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