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CASE SERIES

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Trauma-induced Skin Lesions in Newborns – an Overlooked Problem

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ABSTRACT

Newborns are more likely to develop bruises due to mechanical trauma during birth. Establishing the correct diagnosis in newborns presenting with different skin lesions is not an easy task, and besides the well-known pathology, one must not forget simple posttraumatic injuries. We present three cases that raised questions before establishing that the lesions had been induced by simple mechanical trauma during birth. Trauma-induced skin lesions in newborns may represent an overlooked problem. The three cases presented here are meant to draw attention to the possibility of trauma-induced lesions in newborns, which require only close follow-up and surveillance instead of exhaustive clinical and laboratory investigations, which are inevitably accompanied by anxiety.

Keywords: skin lesions, trauma, newborns

INTRODUCTION

Establishing the correct diagnosis in newborns presenting with different skin lesions is not an easy task, and, besides well-known conditions, one must not forget simple posttraumatic injuries.[1] Newborns are highly likely to develop bruises due to mechanical trauma during the birth process.[2]

We present three cases that raised questions before establishing that the lesions had been induced by simple mechanical trauma during birth.

CASE 1

A 24-hour-old male infant was seen in the Neonatology Department for two lesions on the right upper limb. He was born on term, from a non-consanguineous

FIGURE 1. **A** – Two bluish plaques on the right shoulder and arm (case 1); **B** – Small blister on the dorsa of the left hand (case 2); **C, D** – The aspect of the lesion on day 4 and the same lesion on day 10 (case 3)

marriage, mother 29 years old, primigravida, with a normal course of pregnancy, but with premature rupture of membrane that forced a cesarean birth. The newborn was delivered with an Apgar score of 7, fetal sufferance, and a weight of 3200 g.

On dermatological examination, two small areas of discoloration, similar to bruises, were noted on the external side of the right upper limb, not well-delineated, not infiltrated. One of the macular areas was centered by a linear excoriation, more pigmented than the rest of the plaque. Nothing else was mentioned as pathological (Figure 1A).

Many diagnoses were taken into consideration, but the disappearance of the lesions in 10 days as a result of emollient application proved the traumatic origin of the injuries.

CASE 2

A female newborn was seen immediately after birth for a ruptured vesicle on the dorsa of the left hand. Dermatological examination was requested in the Emergency Department for a suspicion of epidermolysis bullosa presumed by the neonatologist (Figure 1B). Apart from a small sanguine blister, the clinical examination failed to highlight other skin problems. All regular laboratory investigations were within normal limits, swab culture from the fluid extracted from the vesicle was negative, and no other lesions appeared during the 7 days of hospitalization. Healing was complete under normal hygiene recommendations; no follow-up was necessary.

CASE 3

A 4-day-old preterm female infant presented for a superficial erosion, covered by scales on the lateral side of the left arm (Figure 1C and 1D). The lesion was described by the neonatologist as being observed in the first hours after birth, more erythematous, looking as a simple excoriation. Our diagnosis was also post-traumatic lesion; emollients were prescribed, and the clinical aspect of the tegument returned to normal in just a few days.

The three cases presented here are meant to draw attention to the possibility of trauma-induced lesions in newborns, which require only close follow-up and surveillance instead of exhaustive clinical and laboratory investigations, which are inevitably accompanied by anxiety.

The examination of patients was conducted according to the principles stated in the Declaration of Helsinki.

Written informed consent was obtained from the patients' parents for publication of this article.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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