

Neonatal eyelid and canalicular laceration in cesarean delivery

Laceração palpebral e canalicular neonatal em parto cesárea

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ABSTRACT

In modern medicine, neonatal traumatic injuries during childbirth are rare. More rarely are those during a cesarean birth. That is the first reported case of palpebral laceration and neonatal canicular cesarean section. We describe the joint work of early diagnosis by the pediatric team and the prompt ophthalmologic surgical intervention in a well-conducted case of right palpebral and canalicular laceration. The infant presents without permanent functional impairment during postoperative follow-up.

Keywords: *Cesarian section; Eyelids/injuries; Ophthalmologic surgical procedures*

RESUMO

Na medicina moderna, lesões traumáticas neonatais durante o parto são raras. Mais raras ainda são as relatadas por ocasião de um parto cesárea. Reporta-se o primeiro caso descrito de laceração palpebral e canicular neonatal em parto cesáreo. Descreve-se o trabalho conjunto de diagnóstico oportuno por parte da equipe de pediatria e a pronta intervenção cirúrgica oftalmológica num caso bem conduzido de laceração palpebral e canalicular à direita. O lactente apresenta-se sem prejuízo funcional permanente durante seguimento pós-operatório.

Descritores: Cesárea; Pálpebras/lesões; Procedimentos cirúrgicos oftalmológicos

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INTRODUCTION

Eagerly expected during pregnancy, childbirth is a unique moment in a woman's life. This event is anticipated during pregnancy in the form of expectations, and is eternalized in the form of memories and feelings in the life of the mother. Permeating the entire pregnancy, childbirth is a moment surrounded by the unpredictable, whose outcome is important to the first relations between mother and son.

In the face of the unpredictability of this moment in the life of a woman and an entire family, coupled with the technological and scientific development of medicine, respect to the autonomy of pregnant women and medical indications, there has been a tendency in recent decades to raise rates of cesareans worldwide and especially in Brazil from the 1970s onwards.⁽²⁾

In Brazil, estimates from the 1970s indicated that the rate of cesarean births was about 15%, rising to 38% in 2001 and 48.8% in 2008. In 2008, 35% of childbirths in the Brazilian Unified Health System and 80% in the private sector were Caesarean. In 2009, this rate was 50.1%, and for the first time the number of cesareans was higher than the number of vaginal births in the country. The World Health Organization recommends that this rate be around 15%.⁽³⁾

The increased frequency of cesarean births, however, does not present a positive association with the benefits for the mother and newborn³. In addition to the higher incidence of maternal mortality, hemorrhage, puerperal infections, anesthetic complications, and abnormal placentation in future pregnancies, cesarean birth is also a well-established risk factor when elective due to respiratory disorders in the newborn, prematurity and increased neonatal morbidity and mortality.⁽³⁾ However, among the aforementioned risks, there are no traumatic ocular lesions. Such lesions are more common and described in surgical vaginal births such as episiotomy and forceps/vacuum extractor.⁽⁴⁾

We present the first report of neonatal palpebral and canicular laceration in cesarean birth.

CASE REPORT

It is a newborn with 38 weeks of gestation. Elective cesarean birth. At the first examination still in the delivery room, the pediatrician noticed palpebral laceration on the right. He chose to keep the newborn at zero diet, and requested the opinion of the Ophthalmology team. The ophthalmologic evaluation was carried out within the first two hours of birth. Surface laceration of the upper and lower eyelids was observed in the medial corner of the right eye, as well as inferior lacrimal canaliculus lesion, chemosis, and ocular hyperemia. The cornea was intact, the anterior chamber was formed, and no retinal alterations were observed. (Figure 1 and Figure 2).

The newborn promptly underwent surgery to repair the palpebral lesions and reconstruct the lacrimal canaliculus. The procedure was carried out under general anesthesia. With the aid of a surgical microscope, the proximal and distal stumps of the lacerated canaliculus were identified, and then the dilation of the inferior lacrimal punctum and monocanicular intubation with a silicone probe were performed. The canaliculus walls were coated and sutured with vicryl 7-0. The silicone was fixed in place with transfixing stitches with vicryl 7-0 and externally on the lower eyelid skin with nylon 6-0. The orbicularis muscle and upper and lower eyelid skin were sutured with vicryl 7-0.



Figure 1: Conjunctival hyperemia and chemosis.



Figure 2: Upper and lower palpebral laceration (medial corner)



Figure 3: Post operative

Four weeks after the surgical repair, the silicone tube was removed. At month 5 of follow-up, the site of the palpebral suture had good appearance, and there was no epiphora (Figure 3).

DISCUSSION

There are several reports in the literature of traumas in the ocular globe and its attachments at birth, mainly related to vaginal birth using a forceps or vacuum extractor. Retinal hemorrhage, corneal edema, and rupture of Descemet's membrane are the most frequent ocular lesions. Such ocular traumas rarely cause permanent sequelae.^(4,5) However, there are reports in the literature of a broad spectrum of ocular lesions including absence of globe,⁽⁶⁾ facial palsy, subconjunctival hemorrhage, abrasion and corneal abscess, hyphema,⁽⁷⁾ Purtscher's retinopathy, macular hole,⁽⁸⁾ choroidal rupture and traumatic optic neuropathy,⁽⁹⁾ which can lead to irreversible functional damage.

Although these cases are currently seen in a more rare way, due to the improvement of perinatal care and the reduction of the incidence of instrumental childbirths, the case reported deals with the potential risk of palpebral and canalicular laceration, as well as other ocular traumas also during cesarean birth, a fact that has no reports in the literature. If not treated successfully, a canalicular lesion like this can lead to a constant epiphora, causing significant damage to the individual's quality of life.⁽¹⁰⁾

The mechanism of palpebral and canalicular lesion in the present case is possibly related to the cut made by the scalpel during the uterine incision, considering the linear characteristics of the edges of the wound. The fetus was probably very close to the uterine wall. With the increasing number of cesarean births worldwide, other cases such as this may be reported in the future, with greater care at the time of the uterine incision being important in order to prevent such occurrences.

CONCLUSION

Although the incidence of ocular traumas at the moment of birth is rare and most lesions do not cause permanent functional impairment, there are potentially serious lesions requiring specialized care and prompt surgical intervention, such as the case reported above: a canalicular lesion occurred during cesarean birth, an unpublished report in the literature.

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