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CASE REPORT

Conservative management of congenital eversion of the eyelids

Abordagem conservadora do ectrópio palpebral congênito

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Abstract

Congenital eyelid ectropion is the term used to describe the eversion of the eyelids, be it in the upper or lower lid, present at birth. It is a rare condition with a reduced number of cases published in scientific world since 1896, the year it was first reported. The objective of this work is to describe a case of Congenital Ectropion treated conservatively, emphasizing its main characteristics, importance of early diagnosis and appropriate treatment. This is a cross-sectional, retrospective and documentary study based on the methodology of case report involving a female newborn who presented unilateral palpebral eversion at birth and was treated conservatively, showing a satisfactory and functional improvement of the condition.

Keywords: *Eyelids/abnormalities; Ectropion/congenital*

Resumo

Ectrópio palpebral congênito é o termo utilizado para descrever a ocorrência da eversão das pálpebras, seja ela superior ou inferior, presente ao nascimento. Trata-se de uma afecção rara com reduzido número de casos publicados no meio científico desde 1896, ano em que o primeiro relato foi documentado. O objetivo desse trabalho é descrever um caso de abordagem conservadora do Ectrópio Palpebral Congênito, evidenciando as suas principais características, importância do diagnóstico precoce e conduta adequada para o seu tratamento. Este é um estudo transversal, retrospectivo e documental baseado na metodologia de relato de caso que envolve um recém-nascido do sexo feminino que apresentou eversão palpebral unilateral e foi tratada de maneira conservadora, obtendo melhora do quadro com satisfatório resultado estético e funcional.

Descritores: Pálpebras/anormalidades. Ectrópio/congênito

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Introduction

Congenital eyelid ectropion is the term used to describe the occurrence of upper or lower eyelid eversion present at birth. It is a rare condition with few cases published in the scientific world since 1896, the year it was first reported by Adams. [1]

Eyelid eversion accompanied by chemosis, edema and conjunctival prolapse most commonly affects the upper eyelid or both. However, cases of unilateral and asymmetrical lower eyelid involvement have also been described. [2] Once everted, orbicular spasms can act as a sphincter leading to a vicious cycle of strangulation and edema associated with chemosis, conjunctival prolapse, and venous stasis. [3]

Although the exact etiopathogenesis is unknown, some theories have been proposed by several authors, including infections, inflammatory processes, trauma at birth[4], orbicular hypotonia,[5] orbicular septum fusion failure with levator aponeurosis (and adipose tissue interference) ,[6] vertical shortening of the anterior lamella or vertical stretching of the posterior palpebral lamella.[7] In addition, it is known that there is a higher prevalence in black people, patients with Down Syndrome and patients with Colloid Milium.[7,8] According to a study published in 2012, the incidence of ectropion in children with Down Syndrome corresponds to 5.71% due to the association with ligament sagging presented by these patients.[9]

The acquired form of the disease is more prevalent in males, which may be related to the larger dimensions of the tarsus in this gender, [10] in addition to the fact that they work on professions more exposed to risk factors.[11] In a study carried out in 2015 on the occurrence and profile of individuals with palpebral alterations in the Brazilian population, 14 cases of eyelid ectropion were identified with a frequency of 0.18%, 78.5% of males, 100% of white people, elderly, with primary complaint of decreased near visual acuity (50%) and ocular hyperemia (42.8%) requiring surgery in 28.5% of cases.(11)

In the congenital presentation, the condition usually resolves without sequelae within 2 to 3 weeks,[12] if promptly and appropriately treated. The goal is to prevent dehydration of the exposed conjunctiva and allow spontaneous inversion of the eyelid. It may be managed conservatively or with surgical intervention consisting predominantly of subconjunctival injections of hyaluronic acid, tarsorrhaphy with excess conjunctival excision, and total upper eyelid skin graft.[13]

Given the low incidence of the disease, and consequently the limited amount of information regarding its treatment available in the literature, this paper aims to present the main characteristics of the clinical condition, as well as its conservative treatment.

The project of the present study was evaluated and approved by the Research Ethics Committee with approval number 2.957.553.

Case report

In the case reported, a female neonate presented full eversion of the right upper eyelid at birth. She was born by cesarean section at term and without the need to use instruments for extraction from an uneventful pregnancy.

Upon examination, there was complete eversion of the right upper eyelid associated with intense conjunctival edema, making it impossible to retrovert under pressure to its anatomical position. The cornea was apparently healthy, and the photomotor reflex was present (Figure 1).

Immediately after birth, an ophthalmic ointment consisting of retinol acetate 10,000 IU / g, amino acids 25mg / g, methionine 5mg / g and chlorophenicol 5mg / g was applied every 4 hours to initiate the therapeutic approach, and also acetate fluormetolone 0.1% eye drops were applied 1 drop every 4 hours, an ophthalmic lubricant containing dextran 70 0.1% and hypromellose 0.3% was applied 1 drop every 4 hours, plus a bandage with gauze moistened with saline solution 0.9%.

After 24 hours of treatment, there was reduction of the edema of the eyelid affected, allowing its temporary mechanical reversal. However, the same returned to eversion with the effort of crying. On the third day of treatment, there was a clear reduction in chemosis and spontaneous reversal of the eyelid (Figure 2). Complete regression of edema and natural ocular opening occurred within one week of treatment onset allowing hospital discharge and ambulatory follow-up.

Discussion

According to Cruz, ectropions are classified into the following clinical forms: congenital, senile or involutive, paralytic, cicatricial, and mechanical. The congenital form is very rare and of varied etiology. Senile ectropion is quite common, and only occurs in the lower eyelid due to lateral and/or medial ligament laxity. The role of retractor disinsertion in this form of ectropion is discussed. The paralytic form appears in long-term paralysis of the VII nerve, translating the loss of orbicularis muscle tone, and is also restricted to the lower eyelid. The healing eversion may affect both the upper and lower eyelids. It is due to an anterior lamella vertical deficit that evertes the margin. This type of problem is commonly seen after trauma, sunburn, chronic sun exposure, and

Figure 1: Complete eversion of upper right eyelid

Figure 2: Reduction of chemosis and spontaneous reversal of the eyelid

eyelid surgery. Finally, the mechanical form is the one occuring when a bulbar lesion pushes the eyelid margin, everting it.[14]

Complete eyelid eversion with edema and conjunctival prolapse is a rare condition in neonates. It most commonly occurs bilaterally.[2] However, the case reported above reveals its occurrence in unilateral form, counteracting said epidemiological data. The underlying cause of this condition remains unknown, yet several mechanisms have been postulated.[4]

Trauma at birth, orbicularis hypotonia, vertical shortening of the anterior lamella, or vertical stretching of the posterior lamella, lateral stretching of the eyelid, failure of fusion of the orbital septum with the elevator aponeurosis, and absence of an effective lateral cantal ligament were indicated as probable causes. Furthermore, the pressure suffered by the neonate through the birth canal may induce venous stasis leading to edema and conjunctival prolapse that culminates in eyelid eversion. In addition, orbicular spasm works as a sphincter, leading to a vicious cycle of conjunctival strangulation and edema, intensifying such a condition. Conjunctival edema protects the cornea from exposure and, therefore, damage to the cornea is rare.[15]

In the case reported, there were no records of trauma evident at birth nor pressure exerted by the birth canal, since the Cesarean surgery was chosen. However, several structural alterations such as orbicularis muscle hypotonia or orbital septum fusion failure cannot be ruled out, making it impossible to determine the exact etiological factor.

In short, treatment can be conservative and aims to prevent desiccation of the exposed conjunctiva, decrease eyelid edema, and promote spontaneous reversal of the eyelid.[16] Thus, drugs with anti-inflammatory action, promoters of epithelialization and regeneration of injured eye tissues, and ophthalmic lubricants were used to avoid surgical approaches such as horizontal shortening through the superior tarsal strip technique, skin graft, or tarsorrhaphy,[16] described elsewhere.

In a comparative study between the use of isolated tarsorrhaphy and subconjunctival injection of hyaluronidase followed by tarsorrhaphy, it was found that in the first situation the eyelids reversed in about 3 to 4 days; with the combined treatment, the reversal was faster, around 1-2 days.[15] In the present study, the use of a conservative method showed complete eyelid eversion after 7 days of treatment. Moreover, regardless of the treatment proposed, whether conservative or surgical, it should be started early in order to reduce the risk of amblyopia, especially in unilateral cases.[7]

After the therapeutic approach addressed here, the patient progressed without complications, presenting good ocular opening and absence of any noticeable organic lesions.

Conclusion

As evidenced in the present report, the early approach of the congenital eyelid ectropion still in the delivery room allows a favorable progression of the condition using the methods available in most health care systems, such as eye ointments, eye drops, lubricants and eye bandages. Its diagnosis and subsequent therapeutic success is made possible only with the knowledge of the set of signs and symptoms of the disease that were addressed here.

In this sense, this work enables access to information related to such disorder, promoting the dissemination of its treatment among health professionals both in public and private facilities, in particular among those who are involved in obstetric and neonatal care.

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