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EC OPHTHALMOLOGY
Case Report

Ankyloblepharon Filiforme: About a Case at IOTA University Hospital

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Abstract

Ankyloblepharon filiforme adnatum (AFA) is a rare congenital anomaly. This anomaly can be isolated or it is part of a well-defined malformation syndrome. The diagnosis is purely clinical and the treatment is surgical. We report a unilateral case of ankyloblepharon in a 3-months-old infant; referred for eyelid malformation observed since birth. Pediatric examination revealed no other congenital pathologies. The ophthalmological examination revealed a partial fusion of the upper and lower right eyelid by a thin central strip of abnormal tissue measuring approximately 3 mm in length and 1 mm in width; the rest of the ophthalmological examination was unremarkable. The treatment consisted of excision of the strip of tissue at the level of each eyelid margin. Post-postoperative follow-up was unremarkable.

Keywords: *Ankyloblepharon; Congenital Anomaly; Malformation Syndrome*

Introduction

Ankyloblepharon filiforme adnatum (AFA) is a rare congenital anomaly characterized by partial or complete adhesion of the upper and lower eyelids, usually considered an isolated finding, but often associated with other anomalies or a well-defined syndrome. We report a unilateral ankyloblepharon.

Patient and Observation

A 3-months-old newborn referred by the pediatric department of CHU-Gabriel Toure for eyelid malformation noted since birth; child born from a first-degree consanguineous marriage, prenatal check-up carried out without problem, full-term pregnancy, vaginal delivery without notion of fetal distress, vaccination in progress, well-filled record book pediatric examination revealed no other congenital pathologies.

The ophthalmological examination revealed a partial fusion of the upper and lower right eyelid by a thin central strip of abnormal tissue measuring approximately 3 mm in length and 1 mm in width (Figure 1), the rest of the ophthalmological examination was unremarkable. The strip of tissue was excised with Vannas scissors at each eyelid margin, intraoperative hemorrhage was low. The procedure was carried out under general anesthesia with sedation. Post-postoperative follow-up was unremarkable (Figure 2).

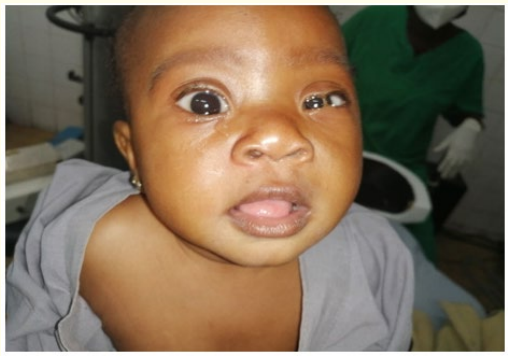

Figure 1: *Ankyloblepharon.*

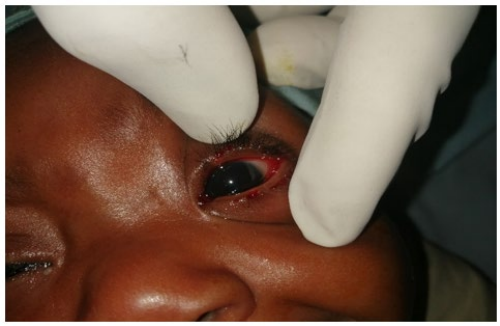

Figure 2: *Ankyloblepharon excised.*

Discussion

Ankyloblepharon filiforme adnatum (AFA) is a rare benign congenital disorder, first described by Von Hasner in 1881. Fusion of the eyelid free edges is a normal stage of fetal development, but an abnormal occurrence at birth. The developing free edges remain fused until the fifth month of gestation, but may not be completely separated until the seventh month.

AFA is characterized by the presence of one or more bands of abnormal tissue joining the free edge of the upper and lower eyelid either unilaterally or bilaterally [1].

The pathogenesis of this anomaly is unknown and a number of theories have been proposed. The most accepted theory is that of a pure developmental anomaly, due to a temporary cessation of epithelial growth and rapid proliferation of the mesoderm, allowing the union of the eyelids in abnormal positions [2].

It can present as an isolated congenital anomaly or associated with a wide range of systemic malformations in conjunction with congenital ectodermal dysplasia or other developmental anomalies whose presence must be sought systematically [3].

Rosenman., *et al*. have divided AFA into four subgroups: Group I where AFA is not associated with any other abnormality, group II is associated with an abnormality of the central nervous system and a cardiovascular malformation, group III is associated to ectodermal

dysplasia, while for group IV, AFA is associated with cleft lip and cleft palate [4]. Baca., *et al*. proposed a fifth group which is associated with chromosomal abnormality.

In our case it is part of group I; the treatment is only surgical to avoid the main complication which is amblyopia.

Conclusion

Ankyloblepharon filiforme adnatum is a rare but potentially amblyogenic congenital anomaly. Treatment should be carried out as quickly as possible to minimize the risk of amblyopia.

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