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Surgical Approach to Ankyloblepharon Filiforme Adnatum in a Case Report

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Abstract | **Case Report**

Ankyloblepharon filiform adnatum is a rare congenital condition. We report the case of a premature eutrophic neonate delivered vaginally at 32 weeks' gestation, weighing 1250 g, female, from an unattended twin pregnancy. The eyelids were partially connected by a membrane on the outer 1/3 of the right eye and almost completely connected on the left eye. The second newborn died 24 hours after delivery. The eyelids were examined without any particularities. There were no associated malformations. We received the newborn two months after birth. Management was surgical and the therapeutic procedure was not haemorrhagic, and the visual axis cleared immediately postoperatively.

Keywords: Eyelid, Congenital Pathology, Amblyopia.

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INTRODUCTION

Ankyloblepharon filiform adnatum (AFA) is defined by the non-disjunction of the gray lines of the upper and lower eyelids, partial or total, uni or bilateral. It is a rare congenital condition. AFA was first described by von Hasner in 1881, and is usually associated with multiple, complex malformations, suggesting autosomal dominant inheritance with varying degrees of penetrance. The incidence in India is 4.4 per 1 million births [1, 2]. AFA is an ambliogenic congenital disorder, so prompt management is essential. Four types of ankyloblepharon have been described; type 1 being isolated, type 2 associated with congenital heart disease and digestive atresia, type 3 forming part of syndromes such as Hay-Wells or SCA and type 4 with oral fissures [3]. According to this classification, our patient had no other associated congenital anomaly. The aim of this work is to illustrate the simple surgical management, which must be rapid to prevent ambliopia.

PATIENT AND OBSERVATION

Clinical Findings

We report the observation of a 2-month-old infant, female, seen at the ophthalmological consultation for the absence of eye opening. Clinical examination revealed a weight of 1,655 g, with the eyelids partially connected by a membrane to the right eye at the outer 1/3 and almost completely connected to the left eye (fig. 1 and 2). Case history: 9th child of a sibling group of 9, from a twin pregnancy, premature at 32 SA eutrophic, delivered vaginally, not resuscitated, birth weight 1250 g. The twin brother died 24 hours after birth, according to the mother, whose eyelid examination was unremarkable.

Chronology

She was admitted to the Sikasso hospital two months after birth.

Diagnostic Evaluation

The eyelids were partially connected by a membrane in the outer 1/3 of the right eye and almost completely connected in the left eye. There were no associated malformations.

Therapeutic Intervention

Management was surgical, involving resection of the band of tissue connecting the two eyelids with Vannas scissors under topical anesthetic. The procedure

was non-hemorrhagic, and the visual axis cleared immediately postoperatively. (Figure 3; 4; 5)

Follow-Up and Results

Ophthalmological follow-up was normal at 1, 6 and 12 months.

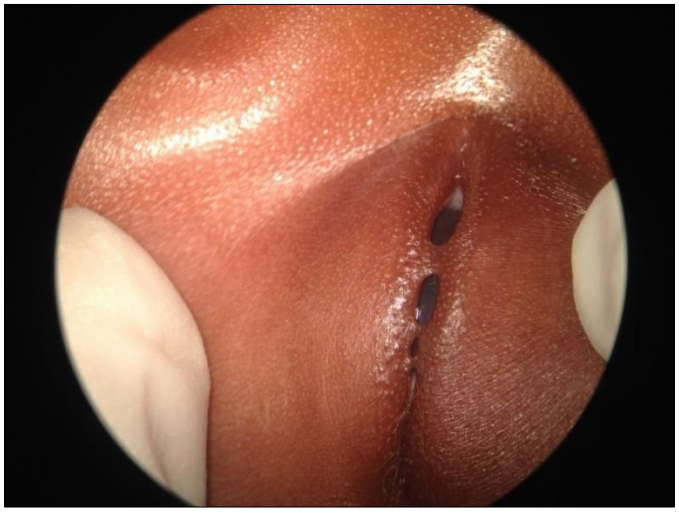

Figure 1: OG of discontinuous bands

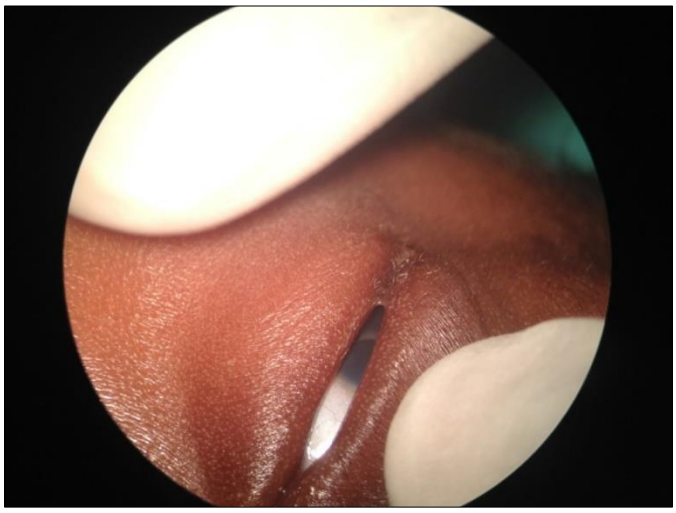

Figure 2: OD partial fusion of the upper and lower eyelids of the right eye by a band at the level of the external canthus

Figure 3: Immediate post-op. The visual axis is clear in the primary position

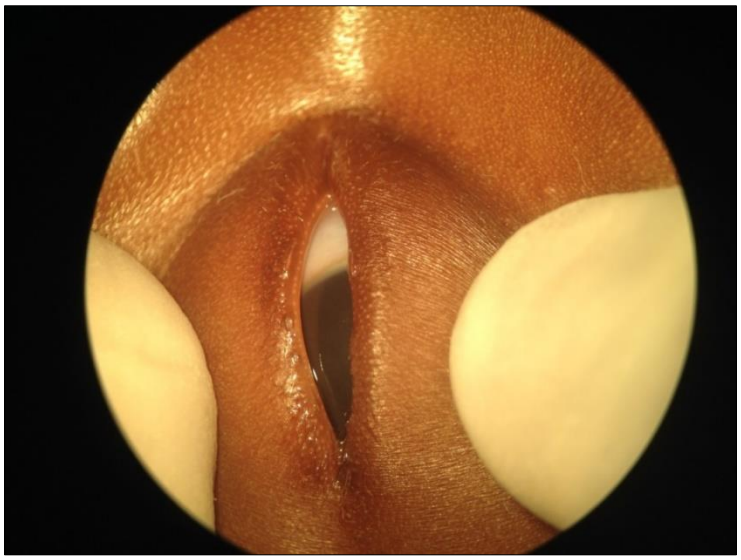

Figure 4: Post-operative OG

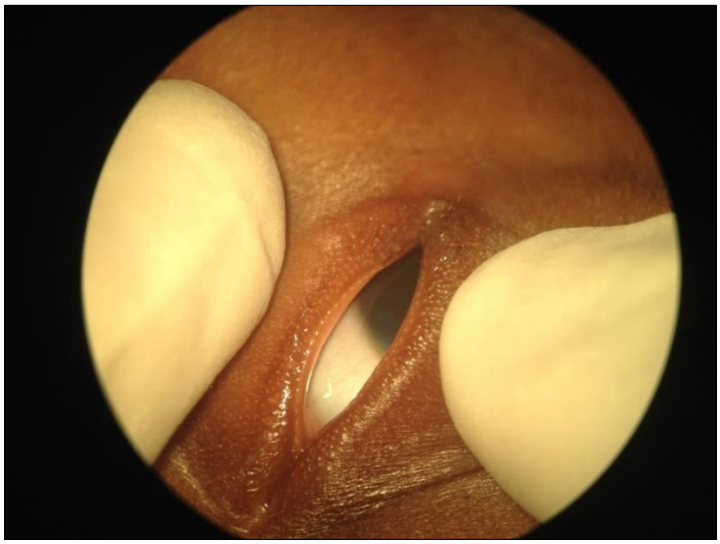

Figure 5: OD post-op

DISCUSSION

Ankyloblepharon filiform adnatum is a sporadic or autosomal dominant condition with variable expressivity [4], which may be isolated or associated with other intrauterine developmental anomalies. However, it is important to actively search for coexisting pathology. The ophthalmic association of ankyloblepharon filiform adnatum is Iridogoniodysgenesia with juvenile glaucoma.

On a general level, it may be associated with disorders such as Edward's syndrome (trisomy18); Hay-Wells syndrome (ankyloblepharon-ectodermal dysplasia-cleft lip syndrome) popliteal pterygium syndrome (characterized by strapping of the knees) and hair curls-ankyloblepharon dysplasia of the nails and cleft lip and palate syndrome) [5, 6].

Our case illustrates a simple surgical approach under topical anesthesia with no hemorrhage and the visual axis cleared in the immediate postoperative period. Previously published in London 2011 by a loannides *et al*., [7], and in 2015, in France by B.Mottet and A.Heitz *et al*., who each reported a case [8, 9].

CONCLUSION

Surgical management must be performed promptly to avoid amblyopia and allow a full ophthalmological examination.

Conflicts of Interest: No conflicts of interest

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