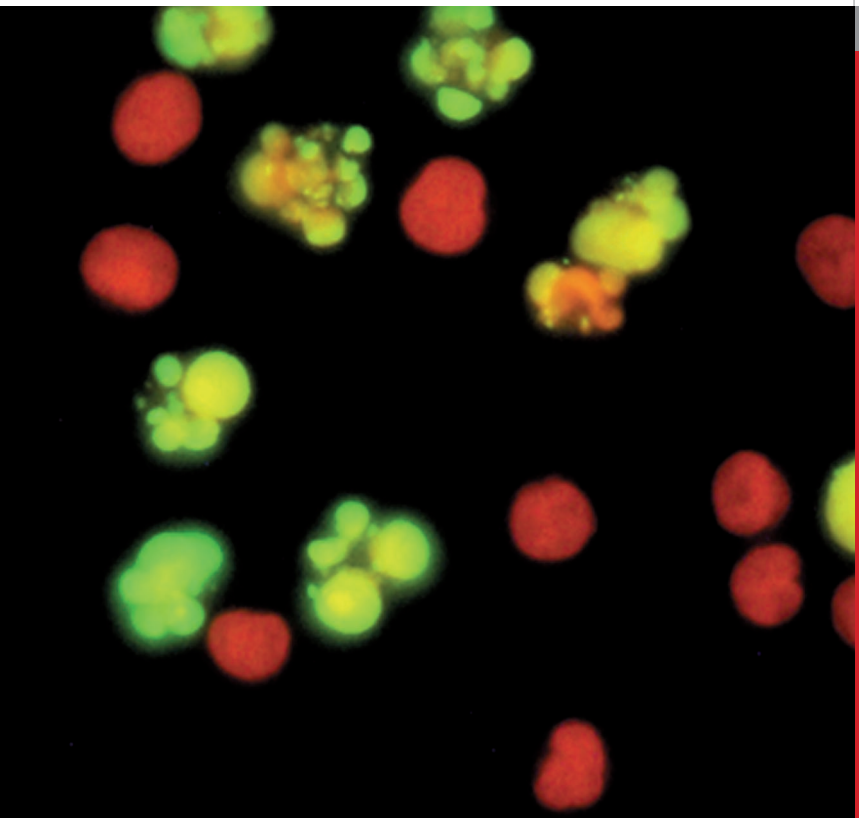
SWISS SOCIETY OF NEONATOLOGY

Ankyloblepharon filiforme adnatum



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INTRODUCTION

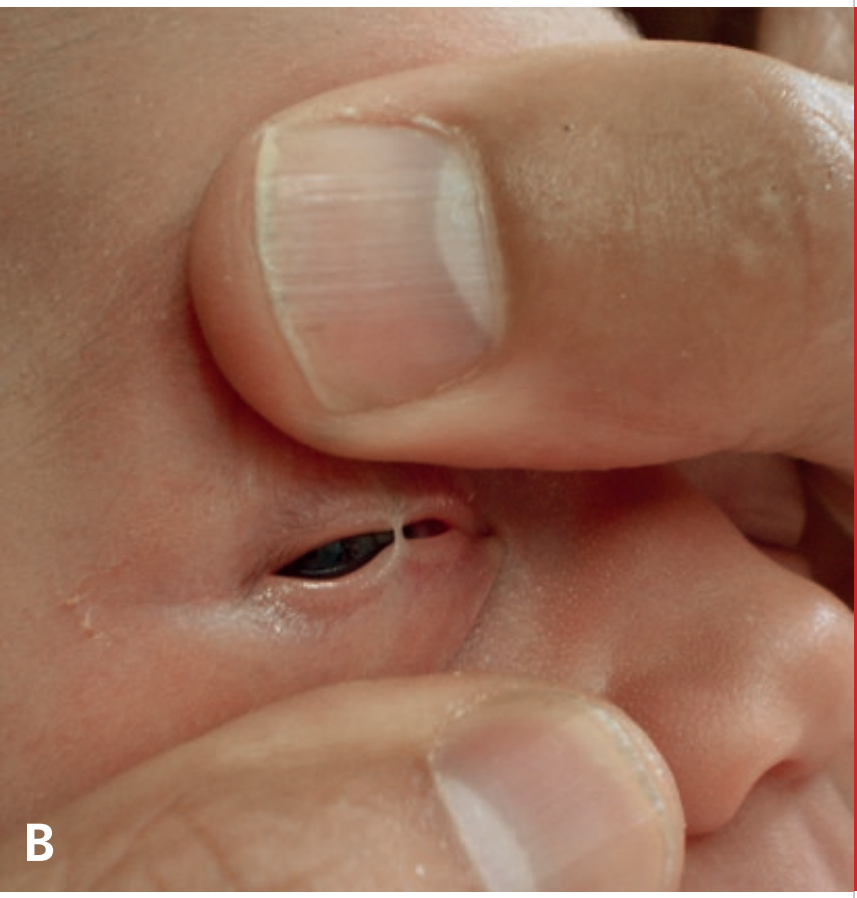
Ankyloblepharon filiforme adnatum (AFA) is a rare congenital malformation characterized by partial or complete fusion of the eyelids. It may be present as an isolated finding, in association with other anomalies, or as part of a well-defined syndrome. We report a case of AFA in a female newborn and describe its management.

CASE REPORT

This female neonate was born to a 32-year-old G2/P2 at 41 4/7 weeks of gestation by a vaginal delivery following an unremarkable pregnancy. The baby girl adapted without difficulties with Apgar scores of 7, 9 and 10 at 1, 5 and 10 minutes, respectively. Her birth weight was 3430 g. The neonatal examination revealed a single band of tissue vertically attached to right upper and lower eyelids, covering the pupil and preventing full opening of the eyelid (Fig. 1 A, B). A detailed systemic pediatric assessment failed to identify any other congenital abnormalities. There was no similar congenital malformation in the family, no family history of eye or systemic diseases, and the mother denied taking any drugs. The band of tissue was divided by one cut using scissors, without necessitating either sedation or administration of a local anesthetic (Fig. 2). No bleeding occurred and the patient showed no signs of distress. Eye examination performed by an ophthalmologist did not identify any underlying abnormalities.

Fig. 1

A fibrous band connects the upper and lower eye lids (A) and prevents opening of the eye (B).


B

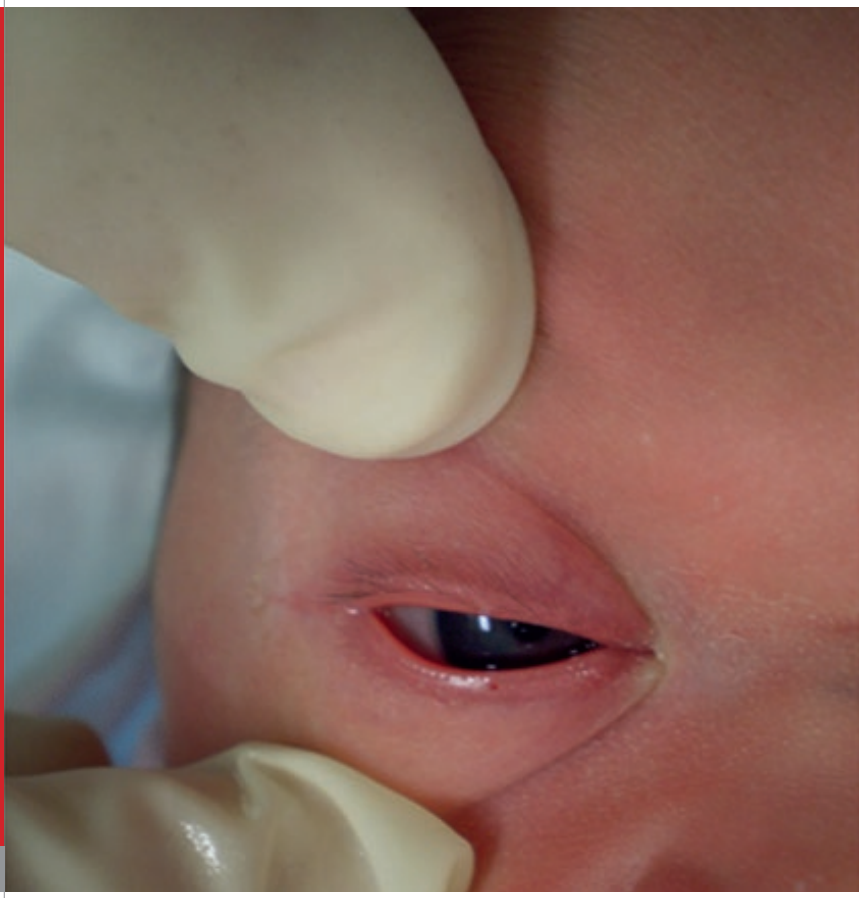


Fig. 2

Appearance of the right eye following division of the band of tissue.

AFA is defined by partial or complete eyelid adhesion with a single or multiple bands of fibrous tissue vertically attached to upper and lower eyelids. The developing eyelid margins remain fused until the fifth month of gestation but may not be completely separated until the seventh month (1). The etiology of AFA is unknown, but failure of apoptosis at a critical stage in eyelid development has been suggested (2).

Usually, AFA constitutes a solitary malformation, as in our case, with sporadic occurrence and an incidence of 4.4 per 100.000 births (3, 4). However, it can be associated with several disorders such as trisomy 18 (Edward's syndrome) (5), Hay-Wells syndrome (a variant of the ectodactyly-ectodermal dysplasia-cleft lip palate syndrome) (6), popliteal pterygium syndrome (characterised by intercrural webbing of the lower limbs) (7), CHANDS (curly hair-ankyloblepharon-nail dysplasia) (8) and cleft lip and palate (9). Other associations may include hydrocephalus, meningomyelocoele, imperforate anus (10), bilateral syndactyly (7), infantile glaucoma (11), and cardiac problems such as patent ductus arteriosus and ventricular septal defects (7).

AFA is diagnosed clinically and the treatment consists of simple surgical resection of the fibrous bands. Ozyazgan et al. (12) have described treating AFA under intravenous sedation, and Ioannides et al. (13) with the aid of topical anesthesia. In our patient, no seda-

tion or local anesthetic was necessary, as described previously by Williams et al. (5) and Gruener et al. (4). Surgical correction should be performed promptly to minimise any risk of occlusion amblyopia, enable full examination of the eye, alleviate parental stress and for neonatal comfort.

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