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## \*Corresponding author

Anubhav Chauhan (MS Ophthalmology),  
Senior Resident, Dept of Ophthalmology,  
Dr. Yashwant Singh Parmar  
Medical College, Nahan Dist.,  
Sirmour, Himachal Pradesh, India.  
Email: Chauhan.anubhav2@gmail.com,  
Tel: +91-981699 1482,  
ORCID number: <https://orcid.org/0000-0002-1122-2202>.

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## Case Report

# Ankyloblepharon Filiforme Adnatum - A Case Report from Sirmaur Hills

Anubhav Chauhan<sup>1\*</sup>, Shveta Chauhan<sup>2</sup>
<sup>1</sup>Dept. of Ophthalmology, Dr. Yashwant Singh Parmar Medical College, India.

<sup>2</sup>Dept. of Dental Surgery, Private Practitioner at Pine Castle, India

## Abstract

A 2-days-old female child was unable to fully open the left eye since birth. She was started on tobramycin (by some other speciality) for what appeared to be sticking of the left eyelids because of discharge. Ophthalmology evaluation revealed Ankyloblepharon filiforme adnatum (AFA) in the left eye. We report this case to highlight that an error of diagnosis can occur as this is a very rare condition. Secondly, treatment modalities for eye discharge and AFA are totally different.

**Keywords:** AFA, ocular, systemic

## CASE

A 2-days-old female child born to a primigravida presented to the ophthalmology department with a history of inability to open the left eye fully since birth. She was already started on tobramycin eye drops by some other specialty as they thought that it was some discharge in the child's left eye which was leading to the inability to open the left eye. The baby was born from a cesarean section for breech presentation at 37+4 weeks of gestation (birth weight 3 kg). Delivery was uneventful and Apgar scores were within normal limits. Prenatal screenings were unremarkable. There was no family history of congenital anomalies or consanguinity. There was no maternal history of smoking, alcohol consumption, and drug intake. Evaluation of the child showed the presence of partially fused left eyelids. There was a presence of a single thin tissue band connecting left upper and lower eyelids impairing full eye opening (figure 1a and 1b). The examination of the right eye was normal. The rest of the physical examination done by us was unremarkable. A diagnosis of left Ankyloblepharon Filiforme Adnatum (AFA) was made. The treatment modality was excision of the band. As this disorder is associated with various systemic disease, a detailed systemic assessment by a pediatrician is imperative and hence the child was advised a pediatric consultation as well.

## DISCUSSION

AFA is a rare congenital abnormality of the eyelids which can lead to amblyopia (because of visual deprivation) if not treated. Single or multiple bands of tissue joining the upper and lower eyelids are seen in this condition [1]. Von Hasner was the first person to describe this disease in the year 1881. Histology of the AFA strands consists of vascularized central core surrounded by stratified squamous epithelium. The incidence of this disease is 4.4/100,000 births. AFA can have a sporadic occurrence or it can present in an autosomal dominant pattern [2].

There is no sex predilection for this disease. Normally, till fifth month of gestation, the developing eyelid margins remain fused and are completely separated by the seventh month of gestation. In AFA, this separation is not seen. The bands joining the eyelids always lie between the orifices of the tarsal gland and the cilia. The most accepted theory of its pathogenesis is that of pure aberrance of development, due either to a temporary arrest of the growth of epithelium or more probably, an abnormally rapid proliferation of mesoderm allowing union at certain points of the mesenchyme of the lid folds without epithelial interposition [3].

AFA is associated with various systemic disease like Edward's syndrome, juvenile glaucoma, CHANDS (curly hair, ankyloblepharon, nail dysplasia), hydrocephalus, cleft lip and palate, ectodermal dysplasia syndromes, popliteal pterygium syndrome, imperforate anus, cardiac defects,



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Figure 1 A:



Figure 1 B:

meningomyelocele, and syndactyly [4]. AFA has been classified into four sub-groups according to Rosenman's classification in the year 1980. It is as follows:

1. Isolated
2. Associated with cardiac or central nervous system anomalies.
3. Associated with ectodermal syndrome.
4. Associated with cleft lip and/or palate.

Treatment of AFA includes simple excision of the band joining the eyelids [5].

#### Conclusion

AFA is a rare congenital anomaly which can be easily missed. Surgical correction should be performed promptly to minimize any risk of occlusion amblyopia and a thorough evaluation of other body systems should be done to exclude associated malformations.

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