Anterior Ectopic Cilia with Myopia and Lichen Nitidus: A Rare Case Report with Dermoscopic Findings

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ABSTRACT

Ectopic cilia, or lash follicles situated over abnormal sites, are an extremely rare entity. Here, we report the case of a 6-year-old-boy who presented with ectopic cilia over the left upper eyelid along with a positive family history. Dermoscopy revealed discreet terminal hair emerging from the individual hair follicles surmounted over a diffuse structureless whitish-yellow zone and a few vellus hairs in the surrounding normal skin. These hairs, on histopathological examination, had multiple pilosebaceous follicular units embedded in a desmoplastic stroma with multiple eccrine sweat glands. Other incidental findings included lichen nitidus and myopia.

Key words: Anterior ectopic cilia, dermoscopic findings, lichen nitidus, myopia

INTRODUCTION

Under normal circumstances, cilia or eyelashes are located only over the margin of the eyelid. However, a large number of congenital and acquired diseases can affect the cilia. Various congenital ciliary abnormalities include cilia incarnate, agenesis, duplicate ciliary row, and ectopic cilia. Ectopic cillum is the rarest anomaly among them all. Ectopic or accessory cilia are the lash follicles situated over an abnormal site. They exists in two forms, namely anterior and posterior.[1]

CASE REPORT

A 6-year-old boy presented to our outpatient department with his parents, with a complaint of the presence of a tuft of the hair over the outer aspect of the left upper eyelid since birth. On inquiry, the patient’s parents admitted that the child used to keep rubbing his left eye, especially while studying or watching television. On cutaneous examination, there was a tuft of around 20–25 hairs over the left upper eyelid 8 mm superior to the lateral lid margin [Figure 1a]. These lashes were surmounted over a noninflammatory skin-colored papular base and had a similar morphology to normal eyelashes. On palpation, this group of hairs was clinging to the tarsal conjunctival plate. There was no tenderness or discharge.

While eliciting family history, the parents revealed that the child’s late paternal grandfather had similar ectopic lashes over his left lid.

On dermoscopic evaluation of the cilia, there was the presence of discreet terminal hair emerging from the individual hair follicles surmounted over a diffuse...
structureless whitish-yellow zone and a few vellus hairs in the surrounding normal skin. There was no perifollicular hyperpigmentation, erythema, yellow/white/black dots, or sebum accumulation at the base [Figure 1b]. On microscopic evaluation, the cilia plucked from ectopic tuft and eyelid were comparable [Figure 1c].

On general psychical examination of the rest of the body, we also observed multiple grouped shiny, 1–2 mm-sized, polygonal papules over the midline of the back and left scapular region [Figure 2a]. Differential diagnoses considered were lichen nitidus, lichen planus, atopic dermatitis, and lichen striatus. On histopathological examination of these lesions, there was the presence of dense lymphohistiocytic subepidermal infiltrate enclosed within the enlarged dermal papilla and interface reaction [Figure 2c]. Dermoscopically, multiple, white, well-circumscribed circular areas along with a vague brown shadow within the white circles [Figure 2b]. The lesions were diagnosed as lichen nitidus on the basis of their characteristic morphology and dermoscopy, which further got confirmed by histopathological examination.

On ophthalmological examination, normal superior and inferior palpebral conjunctiva ruled out posterior cilia. Visual acuity was 20/20 (OS) and 20/20 (OD) with −0.75 DS in the left eye.
The patient was diagnosed with ectopic cilia with myopia of the left eye and advised surgical excision. Histopathological analysis of the excised mass showed multiple pilosebaceous hair follicles embedded in a desmoplastic stroma with multiple eccrine sweat glands [Figure 3]. The presence of lichen nitidus was an incidental finding. The patient’s parents were advised surgical resection of the ectopic cilia, which they refused to.

**DISCUSSION**

Although common in animals, ectopic cilia is a rarely reported entity in humans. It was reported for the first time by Wiegmann in 1936. It exists primarily in two forms: anterior and posterior, arising from the anterior and posterior tarsal plate, respectively. Anterior ectopic cilia are congenital (hereditary or sporadic), generally asymptomatic, unilateral and seen along with the apocrine sweat glands. The characteristic site of the anterior ectopic cilia corresponds to the embryological development site where the two angiosomes of temporal and facial arteries coincide (the location of the Tessier or the type 9 facial cleft). They arise due to the focal absence of suppression of the periorbital natural facial hair growth from accessory eyebrow and eyelash cells.

According to a theory of development, they arise from replacement of Meibomian glands with the cutaneous glands. Another theory states that they are derived from the skin of eyelid with follicle bulbs embedded in the dermis (normally, the lid follicles are situated deep in the orbicular muscles).

Various diseases reported being associated with it include atopic eczema, nail–patella syndrome, choristoma, and nevus depigmentosus. The only association observed in our patient was incidental lichen nitidus with left eye myopia.

Differential diagnoses include cilia incarnate (growth of an extra eyelash from a normal origin via the eyelid to either the inner tarsal conjunctiva or external skin), dermoid cysts, distichiasis, and trichiasis.

All of the above were ruled out in our patient by clinical and dermoscopic evaluation. The proximity of the tuft to the tarsal plate, their similarity to eyelashes, and lateral direction of cilia favored the diagnosis of anterior ectopic cilia. Dermoscopy is also helpful in ruling out the dermoid cyst (shows the presence of hair emerging from a common sinus tract instead).

To date, only 16 cases of anterior ectopic cilia have been reported in the literature. Apart from ours, only two studies in the past have reported a positive family history in the ectopic cilia. An autosomal dominant inheritance has been hypothesized by them.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**

There are no conflicts of interest.

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