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Case Report

Limbal dermoid in right eye in an infant: a case report

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ABSTRACT

Limbal dermoids are congenital, benign tumors located at the corneoscleral junction, often associated with ocular surface abnormalities and potential facial disfigurement. They can vary in size and impact visual development depending on their location and extent. This case report describes an infant presenting with a mass growth in the right eye (RE) accompanied by facial disfigurement. The infant underwent a clinical examination, which confirmed the presence of a limbal dermoid in the right eye. The physician's management plan included initiating patching therapy for the left eye (LE) for 2 hours daily to stimulate visual development in the affected eye and to prevent amblyopia. A review was scheduled for 6 months later to monitor the dermoid's growth and assess visual acuity. Conservative management with regular monitoring was deemed appropriate due to the benign nature of the limbal dermoid and the absence of significant refractive error.

Keywords: Amblyopia, Corneoscleral junction, Facial disfigurement, Limbal dermoid, Patching therapy

INTRODUCTION

Congenital, benign tumors known as limbal dermoids usually appear as firm, white lumps near the corneoscleral junction. They are referred to as choristomas and consist of ectopic tissues like cartilage, sebaceous glands, and hair follicles that are not typically seen in the eye.[1] The prevalence of limbal dermoids is low, and because of their visibility and possible correlation with other ocular or systemic disorders, the majority of cases are discovered during infancy or early childhood.[2] Visual abnormalities such as astigmatism, refractive errors, and, in more extreme situations, amblyopia can be brought on by limbular dermoids.[3] Conservative therapy is frequently sought in the absence of considerable refractive error or functional impairment, even though surgical removal may be necessary in situations when the lesion poses a hazard to vision, esthetic problems, or discomfort.[4] In this instance, a newborn had mild facial deformity along with a noticeable lump at the right eye's (RE) corneoscleral junction that was later determined to be a limbal dermoid. In order to prevent amblyopia and promote visual development in the right eye, the doctor's treatment approach centered on conservative care using occlusion therapy, which involves patching the left eye for two hours every day. This strategy aligns with existing best practices for treating infants with similar conditions.[5]

CASE REPORT

An infant presented with complaints of a visible mass growth in the right eye (RE) (Figure 1) along with associated facial disfigurement. On clinical examination, the mass was identified as a limbal dermoid (Figure 2) located at the corneoscleral junction of the right eye. The lesion was non-tender, with no signs of inflammation or infection. OPD image workup was carried out and results are shown in Table 1. Given the benign nature of the

dermoid and the absence of significant refractive error, the management plan was conservative.

Figure 1: Visible mass growth in the right eye.

Figure 2: limbal dermoid.

The physician recommended patching the left eye (LE) for 2 hours daily to promote visual development in the right eye and prevent amblyopia. A follow-up review was scheduled after 6 months to monitor the condition and reassess the need for surgical intervention.

Table 1: OPD image workup.

Finding name	Right eye	Left eye
Conjuctiva	Normal	Normal
Cornea	Dermoid encroaching on cornea at 8 clocks	Clear
Anterior chamber	Normal depth, quiet	Normal depth, quiet
Pupil	RRR	RRR
Iris	Normal	Normal
Lens	Clear	Clear
vitreous	Clear gel	Clear gel
Fundus	CDR 0.3:1, HNRR, FR+	CDR 0.3:1, HNRR, FR+
Lid	Flat	Flat
Roplas	Negative	Negative
vision	Distance vision	
Unaided	20/190	20/190

DISCUSSION

Occlusion therapy is a tried-and-true method of conservatively managing limbal dermoid in the instance at hand. In children with unilateral visual abnormality, similar cases in the literature suggest occlusion therapy to reduce the incidence of amblyopia.[7] Even when there is a benign lesion that could normally compromise visual function, this tactic permits the weaker eye to develop. According to studies, patching can greatly enhance results by encouraging balanced visual growth at an early stage, especially when surgical removal is not required right away.[8]

Additionally, it is in keeping with accepted practices for treating juvenile ocular malignancies to keep an eye on the child and reevaluate after six months. Because there is no major refractive error in this situation, preventing amblyopia rather than removing the lesion becomes the main concern, which lessens the need for surgical intervention.[9] Reducing the long-term visual impact of limbal dermoids has been successfully accomplished with conservative treatment techniques, such as patching and routine monitoring.[10] If the lesion causes additional problems, like enlargement or the development of refractive error, which might be frequent in certain situations, subsequent surgery is still an option.

CONCLUSION

The need of early and conservative care in preventing long-term visual impairment is shown by this newborn example with limbal dermoid. By reducing the likelihood of amblyopia, occlusion therapy helps the damaged eye develop visually in a healthy way. The choice to postpone surgery highlights how crucial it is to give non-invasive therapies priority when there is no discernible refractive defect. To track the dermoid's development and evaluate any alterations that might call for future surgery, routine follow-up is essential. In juvenile ocular problems, this method emphasizes striking a compromise between treating cosmetic issues and preserving functional vision.

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