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Congenital Pupillary-Iris-Lens Membrane

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Abstract **Case Report**

A 3-week-old full-term girl was noted to have a white opacity in the right pupil. On examination, there was a white membrane attached to the nasal pupillary margin in the right eye. The pupil was not displaced, and there was no any band of fibrous tissue seen attaching to the chamber angle. A diagnosis of congenital pupillary-iris-lens membrane was made. Because the center of the pupil was open, the patient was followed conservatively. At 6 months of age, visual acuity was 20/180 in both eyes, the membrane had not developed new attachments to the pupillary margin. One year after the initial visit, the membrane was unchanged. Early recognition of this condition is vital to enable nonsurgical or surgical management, to abort its progressive course, and to prevent secondary vision-threatening complications such as amblyopia and glaucoma.

Key words: Congenital pupillary-iris-lens membrane.

INTRODUCTION

Congenital pupillary-iris-lens membrane with goniodysgenesis is a rare clinical entity reported by Cibis *et al.* in 1986 [1]. It is characterized by proliferative membrane over the iris, anterior to the lens, and in the chamber angle [1-5]. Here, we report a case of a 3-week-old girl with congenital pupillary-iris-lens membrane briefly.

Case Report

A 3-week-old full-term girl delivered uneventfully was noted by her parents to have a white opacity in the right pupil. The patient was referred to our department for evaluation. Systemic examination was normal and the family history was unremarkable. On examination, there was a white membrane attached to the nasal pupillary margin in the right eye (Figure 1).

Fig-1: Anterior segment photographs of the right eye

The remaining pupillary margin appeared to be unattached to the membrane. The pupil was not displaced, and there was no any band of fibrous tissue seen attaching to the chamber angle. The corneal diameters measured 10.5 mm in the both eyes. With instillation of phenylephrine drops, the pupil dilated to 5 mm in the region free from attachment to the membrane, while the membrane itself remained unchanged. The portion of lens that was revealed after pupil dilation appeared to be clear. The left eye showed

no evidence of a pupillary membrane. Fundus examination of both eyes was normal. A diagnosis of congenital pupillary-iris-lens membrane was made. Because the center of the pupil was open, the patient was followed conservatively. At 6 months of age, visual acuity was 20/180 in both eyes; the membrane had not developed new attachments to the pupillary margin. One year after the initial visit, the membrane was unchanged.

DISCUSSION

Although a strand of the membrane often extends from the iris surface peripherally toward the anterior chamber angle, attaching to an anteriorly displaced segment of Schwalbe's line [1-3], there was no any band of fibrous tissue seen attaching to the angle in the preset case. In some cases, the membrane appears to be progressive [1-4]. It may extend over the pupil or may constrict the pupil to the point that no useful optical path remains [1-4]. In other cases, progression of the membrane leads to blockage of aqueous flow from the posterior chamber to the anterior chamber, and iris bombe results [1-4]. Because the membrane often causes an ectopic pupil or pupillary block glaucoma, surgical intervention is sometimes required.

The origin of the membrane is controversial. While Cibis *et al*. [1, 2] postulated that it was neuroectodermal in origin and was in fact a remnant of embryonic iris tissue, Lambert *et al*. [4] postulated it to be a remnant of anterior tunica vasculosa lentis.

CONCLUSIONS

Early recognition of this condition is vital to enable nonsurgical or surgical management, to abort its progressive course, and to prevent secondary vision-threatening complications such as amblyopia and glaucoma.

Disclosure

The authors have no conflicts of interest to disclose for this paper.

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