Grand Rounds

A 51-year-old man with photopsias

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History

A 51-year-old man presented with a 4-week history of photopsias with no subjective visual field loss. He had no history of ocular injury, but his right eye had always been the weaker of the two. His brother had undergone enucleation 10 years earlier for a cause unknown to the patient. There was no other significant family history.

Examination

The patient had low-set ears, sloping shoulders, a webbed neck and an anti-mongoloid slant of the eyes. His presenting visual acuities were 6/18 and 6/9, in the right and left eyes, respectively. Intraocular pressures were normal.

The right inferotemporal retina (Figures 1 and 2) excluding the macula had gross pigmentary changes. At the 7 o'clock position in the periphery, a small nodule of neovascularization was seen. These features were consistent with spontaneous reattachment of the retina. There was a slight swelling of apparently atypical retinoschisis in the superotemporal periphery from 10 to 12 o'clock. Yellow-white vitreous opacities were also seen.

Examination of the left fundus (Figure 3 and 4) revealed localized inferotemporal dialysis surrounded by minimal subretinal fluid and a well-established demarcation line.

Ancillary Testing

A fluorescein angiogram revealed two small spots of leakage on the foveal capillary margin.

Treatment

The patient's ocular condition appeared stable initially and on follow up therefore no treatment was offered.

Figure 1. Photograph of the right fundus.

Figure 2. Photograph of the right fundus.

Diff DX

Old Retinal Detachment

In old retinal detachments, retinal thinning secondary to atrophy, secondary intraretinal cysts, subretinal demarcation lines and retinal holes or tears are seen.

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Figure 3. Photograph of the left fundus.

Figure 4. Photograph of the left fundus.

Degenerative Retinoschisis

Degenerative retinoschisis is a smooth, convex, thin and immobile elevation of layers of retina. However, demarcation lines and secondary cysts in the inner leaf are usually absent in retinoschisis.

Uveal Effusion syndrome

The uveal effusion syndrome is a rare, idiopathic condition characterized by choroidal detachment associated with exudative retinal detachment.

Diagnosis

Bilateral retinal dialysis is a rare finding. Unilateral nasal and superior dialyses are often caused by trauma.¹ Bilateral retinal dialysis without trauma suggests a developmental anomaly at the ora serrata, and there is no known inheritance pattern. In our patient, his general appearance and no previous trauma suggests that he has a bilateral, congenital retinal dialysis.

Retinal dialysis is probably secondary to a developmental abnormality of the inferotemporal periphery of the retina and vitreous base and may be precipitated by trauma.² In some cases, an autosomal recessive mode of inheritance³ and the possible involvement of lattice degeneration have been considered.⁴

Inferotemporal quadrant retinal dialysis occurs in young adults and is associated with demarcation lines, retinal cysts, peripheral microcystoid degeneration and yellow-white vitreous opacities. The majority of these features were seen in our patient.

Genetic factors play a role in some cases of inferotemporal dialysis, the cause of which is probably multifactorial.⁵

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