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CORRESPONDENCE

Sir,

A case of arrested primary congenital glaucoma

We report a case of arrested primary congenital glaucoma and demonstrate the importance of long term follow up of affected patients.

Case report

A healthy 14-month-old boy was referred by the vision screening service. His parents felt his right eye (RE) to be larger than the left eye (LE) since birth.

On examination, the RE looked larger than the LE (Figure 1). Intraocular pressures (IOPs) with iCARE tonometer (Icare Finland Oy, Helsinki, Finland) measured 13 mm Hg in the RE and 12 mm Hg in the LE. Fundoscopy showed mild optic disc asymmetry with cup : disc ratios being 0.2 RE and 0.1 LE. On cycloplegic refraction the RE was myopic at −2.00DS and the LE was emmetropic and the full prescription was given. Primary congenital glaucoma was suspected and he underwent two examinations under anaesthesia (EUA) in two independent centres, in the 3 months following presentation.

In the first EUA, sevoflurane gas was used. IOPs before and after intubation were 12 mm Hg in the RE and 8 mm Hg in the LE. Corneal diameter measured 13.25 mm in the RE and 11.75 mm in the LE. Optic disc asymmetry was confirmed at 0.3 RE and 0.1 LE. Central corneal thickness was thinner on the right at 456 μm, than the left 508 μm. Axial length measured 24.1 mm in the RE and 21.3 mm in the LE. Three months later, a second EUA using ketamine revealed IOPs of 8 mm Hg in the RE and 6 mm Hg in the LE. Haab striae were noted in the RE and gonioscopy revealed an anterior iris insertion with multiple processes. Disc cupping was noted to have reversed to normal in the RE.

Eighteen months from presentation there has been no rise in IOPs and the vision is good and equal in both the eyes. These findings confirmed right arrested primary congenital glaucoma.

Comments

Only two case series of spontaneously resolved primary congenital glaucoma have been reported.[1,2] The exact mechanism for spontaneous resolution is unknown but might involve continued postnatal maturation of the drainage angle.[3] This makes the angle cope with the aqueous load leading to a reduction in IOP. Cupping reversal can be due to normalisation of IOP in eyes with sufficient scleral elasticity that restores the diameter of the scleral canal.[4] Ketamine should ideally be used as induction anaesthetic agent during EUA, as sevoflurane can lower the IOP significantly, and, therefore, our first IOP reading may have been underestimated.[5]

It is important to observe such cases long term, as patients can develop active glaucoma later on.

Conflict of interest

The authors declare no conflict of interest.

Figure 1 RE looked larger than the LE.

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