

The study of large patient sample with specific recurrent associations may contribute in the search of possible candidate gene both for CHD and OA. On the other hand, the association between ocular and heart anomalies suggest that a multidisciplinary approach is needed and all CHD patients, syndromic and isolated, may be evaluated routinely by an ophthalmologist.

References

- 1 Mansour AM, Bitar FF, Traboulsi EI *et al.* Ocular pathology in congenital heart disease. *Eye* 2005; **19**(1): 29–34.
- 2 Bianca S, Bianca M. Heart and ocular anomalies in children with Down's syndrome. *J Int Dis Res* 2004; **48**: 281–282.
- 3 Bromham NR, Woodhouse JM, Cregg M, Webb E, Fraser WI. Heart defects and ocular anomalies in children with Down's syndrome. *Br J Ophthalmol* 2002; **86**: 1367–1368.

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Sir,
Reply to Bianca *et al*

The letter of Bianca *et al*¹ has shed light into the association between nystagmus, cataract, or myopia and congenital heart disease (especially atrial septal defect) in the context of Down's syndrome. Nystagmus was detected in 30% of Down's syndrome.² da Cunha *et al*³ found myopia to be associated with congenital heart

disease in Down's syndrome, while Bromham⁴ found heart defects in Down's syndrome to be associated with myopia and nystagmus.

The series that we described had a small number of Down's syndrome (17 cases) and were examined at a very young age, and many had poor oxygen saturation at the time of the eye examination. Ocular findings increase with age, and because of the cross-sectional nature of the study, we found a low percentage of ocular findings: two had congenital cataract and one had congenital nystagmus among the 17 subjects with Down's syndrome. The high percentage of congenital cataract in Down's syndrome (12%) confirms to the findings of Bianca *et al*.¹

We analysed the cases of isolated atrial septal defect and found negative eye examination in 14 subjects (including three with velocardiofacial syndrome), ptosis (one subject), and congenital cataract (one subject). It is possible that congenital cataract is associated with atrial septal defect as suggested by Bianca *et al*.¹

We thank Bianca *et al* for their theory of susceptibility genes for atrial septal defect or other cardiac anomalies and cataract or other eye anomalies that may be contiguous or reciprocally influenced. Larger epidemiological studies than ours can help elucidate these associations.

References

- 1 Bianca S, Bianca M. Heart and ocular anomalies in children with Down's syndrome. *J Intellect Disabil Res* 2004; **48**: 281–282.
- 2 Wagner RS, Caputo AR, Reynolds RD. Nystagmus in Down's syndrome. *Ophthalmology* 1990; **97**: 1439–1444.
- 3 da Cunha RP, Moreira JB. Ocular findings in Down's syndrome. *Am J Ophthalmol* 1996; **122**: 236–244.
- 4 Bromham NR, Woodhouse JM, Cregg M, Webb E, Fraser WI. Heart defects and ocular anomalies in children with Down's syndrome. *Br J Ophthalmol* 2002; **86**: 1367–1368.

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