

Letter to the Editor: Manifest Strabismus in Children Previously Diagnosed with Pseudostrabismus

Harry O Orlans BM BCh¹

Edward Bloch MB BS¹

Nabil Uddin BSc¹

Alistair Jones BSc¹

Saurabh Jain FRCOphth^{1,2}

¹Royal Free London NHS Foundation Trust, London, UK

²University College London Medical School, London, UK

Pseudostrabismus is often diagnosed in children with the appearance of a squint but no genuine ocular deviation. Recent studies have suggested a possible association with the subsequent development of true strabismus and amblyopia.¹⁻³ We aimed to establish the incidence of true strabismus in children under the age of 36 months initially diagnosed with pseudostrabismus seen in our outpatient clinics over the last decade.

Patients were identified through a retrospective computer-based search using the terms 'pseudostrabismus', 'pseudosquint', and 'pseudoesotropia'. All children under the age of 36 months who were given one of these diagnoses between April 2001 and September 2012 were included. The case notes of those who were documented in subsequent outpatient clinic letters to have a manifest strabismus were then reviewed.

A total of 199 children met the inclusion criteria of which 112 (56.3%) were boys. The median age at presentation was 7.5 months (range 2 to 35 months). One-hundred-and-forty-six (73.3%) had a documented follow-up appointment. Overall, 12 (6.0%) children were subsequently diagnosed with a manifest strabismus: there were seven cases of non-accommodative esotropia, three of fully or partially accommodative esotropia, and two of exotropia. Of the children who developed a manifest strabismus, three had a family history of strabismus or amblyopia (although only one in a first-degree relative), and one was documented as having broad epicanthic folds. A specific parental concern about squint was documented in nine of the twelve cases and poor co-operation was recorded in two. The median time interval between diagnosis of pseudostrabismus and true strabismus was 7.5 months (range 3 to 12 months). Three of the children showed evidence of amblyopia in the deviating eye at follow-up (1.5% of the whole cohort).

The incidence of true strabismus in this patient group was higher than that expected based on population data (2.1-3.3%, from the Baltimore Pediatric Eye Disease Study),⁴ and consistent with reports from elsewhere.² This may

have been because subtle deviations were missed at the time of initial review owing to the inherent challenges of assessing preverbal children, or because intermittent deviations, which had been noted by the parents, were not manifest during the first assessment. One limitation of this retrospective analysis is the significant proportion of children who did not have documented follow-up (26.6%). It is possible therefore, that our figure of 6.0% may represent an underestimate of the true proportion of the cohort who developed a manifest deviation. Furthermore, given the low number of patients who were later diagnosed with true strabismus, it was not possible to ascertain risk factors for its development, and future large scale - ideally prospective studies will be required to identify any such risk factors. All children who developed a true strabismus in our study did so within twelve months of their initial consultation, with a 25% incidence of amblyopia. We recommend a follow-up period of one year, or until a satisfactory unilateral LogMAR visual acuity is obtained, as appropriate for children referred with suspected strabismus who are found to be orthoptically satisfactory on initial examination.

REFERENCES

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Corresponding author: **Dr Edward Bloch**
Ophthalmology Department
Queen Mary's Hospital, London DA14 6LT, UK
Email: edward.bloch@gmail.com