CASE REPORT: BILATERAL MICROTROPIA WITHOUT IDENTITY

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Abstract
The fixating pattern of the deviating eye in microtropia and its application to bilateral eccentric fixation is discussed. A case of bilateral microtropia with bilateral eccentric fixation, with the results of standard and additional tests is presented.

Key words
Microtropia, bilateral eccentric fixation.

Lang[1] has described three types of fixation pattern of the deviating eye in microtropia:

i) central fixation
ii) eccentric fixation without identity with the angle of anomaly (i.e. there is an incomplete movement to cover test)
iii) eccentric fixation with identity (i.e. there is no movement to cover test)

When considering bilateral eccentric fixation, Mein[2] stated "If bilateral eccentric fixation does occur in cases of bilateral amblyopia without a manifest deviation on cover test and with demonstrable binocular single vision, then it would appear that microtropia with identity can occur bilaterally and is not confined to one eye as hitherto described by von Noorden and other authors".

Recently we have observed several patients who have demonstrated bilateral microtropia without identity, that is, a movement can be detected when either eye takes up fixation on cover test without maintaining this fixation. Some of these deviations have become obvious only after occlusion of the "fixing" eye in cases of bilateral eccentric fixation.

The aim of this paper is to present a case of bilateral microtropia and eccentric fixation without identity.

Master D.B., age 7 years, presented at Sydney Eye Hospital, as, on medical examination at a receiving centre, he was found to have reduced vision in each eye. He was referred for refraction to the general clinic and then to the orthoptic clinic for assessment and supervision of treatment.

No accurate history was available as the child was a ward of the state. The patient said that he had previously worn glasses but had lost them.

Examination

After refraction under cycloplegia, glasses (R–3.75/+3.75 x 105, L–2.75/+1.75 x 80) were ordered and worn. Fundi and discs were normal.

Cover test with glasses revealed a R microesotropia with a simultaneous L microesotropia. Ocular movements and convergence were normal. Stereopsis measured 50 seconds of arc on the Titmus stereo test. Visual acuity, with glasses was R6/9 (part), N8, and L6/6 (slowly), N6. On monocular visuscopy the right eye was fixing parafoveally in the temporal inferior area, and the left eye was fixing parafoveally in the nasal inferior area. The 4^{Δ} test proved inconclusive.

Left lens occlusion (2 hours per day) was ordered to try to improve the right visual acuity, but was discontinued when the vision failed to improve.

During the following months of observation, some more specialised tests were performed.

Fields were full to confrontation testing. Haidinger's brushes were projected nasally with each eye. The Farnsworth Munsell 100 Hue Colour Test was within normal limits.

At the last visit, ten months after the first, the results of the orthoptic examination (including visual acuity) were unchanged. The responses to the tests were confirmed by my colleagues in the orthoptic department.

REFERENCES

1. LANG, J. "Microtropia" Arch. Ophthalmol. 81:758 1969.
2. MEIN, J. "Bilateral Eccentric Fixation" Brit. Orth. J. 32:14-20. 1975.