

## Association of pseudo-exotropia with true esotropia in cicatricial retinopathy of prematurity

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### Case 1

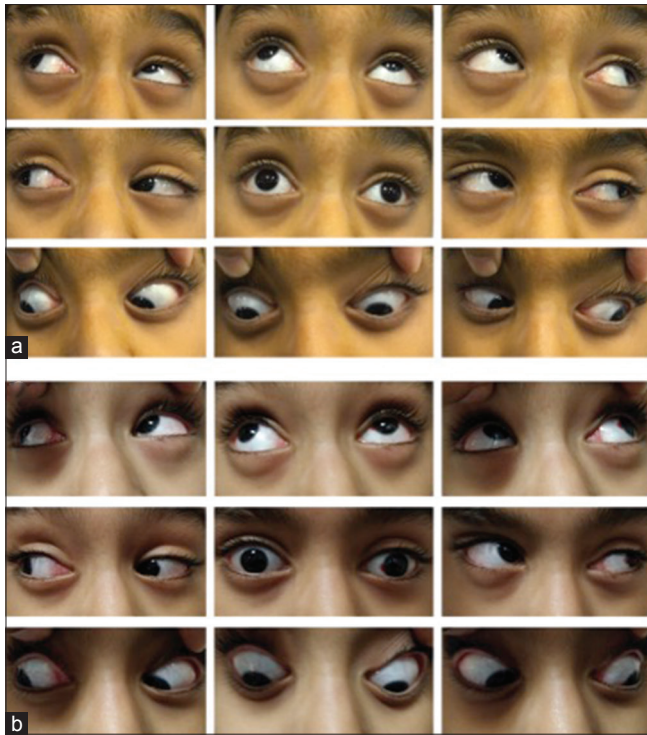
An 8-year-old boy presented with an outward deviation of either eye for the past 3 years, with a history of prematurity and laser retinopathy of prematurity (ROP).

The best-corrected visual acuity (BCVA) was 20/40 in either eye with -7.50 D of myopic correction. A nasally decentred light reflex with an apparent exotropia was evident on Hirschberg's test. However, the cover test revealed an in-to-out refixation movement suggestive of esodeviation which was measured to be 35 prism-diopters (PD) base out for distance and near. There was bilateral inferior oblique (IO) overaction with a significant V-pattern [Fig. 1a]. The fundus examination showed regressed ROP with temporal macular drag, bilaterally [Fig. 2a].

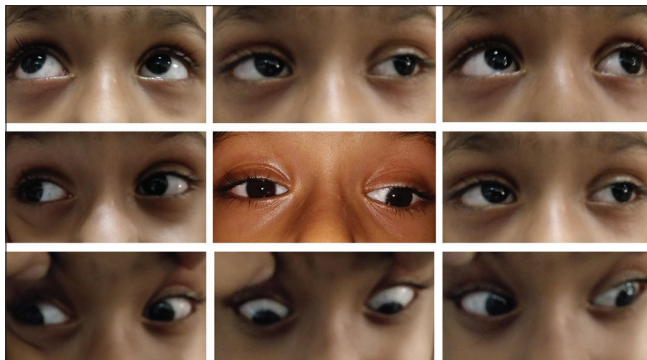
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**Figure 1:** Nine gaze clinical photographs of case 1 (a) preoperative pseudo-exotropia with inferior oblique overaction with V-pattern; (b) postoperative decrease in V-pattern

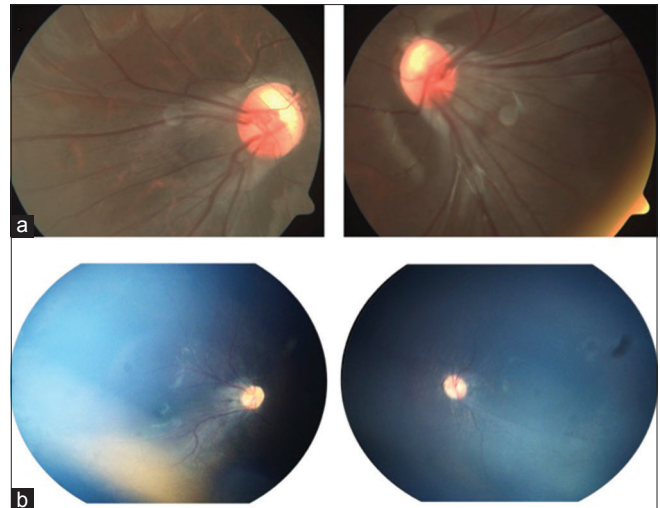


**Figure 3:** Nine gaze clinical photographs of case 2 showing pseudo-exotropia

A bilateral IO weakening procedure was planned to correct the V-pattern. The esotropia was left uncorrected to avoid worsening of the apparent exotropia. Post-operatively, the pattern and the elevation in adduction were reduced [Fig. 1b].

#### Case 2

A 6-year-old male presented with an outward deviation of either eye for the past 4 years with a history of laser ROP. With a bilateral refractive correction of -6.50D, he had a BCVA of 20/80 (Cardiff Acuity Cards). The Hirschberg's test showed a 15° nasally decentred light reflex, suggestive of exotropia but, a cover test revealed the in-to-out movement of the eye. There were no oblique overactions or patterns [Fig. 3]. The fundus examination showed temporal macular drag with regressed ROP [Fig. 2b]. Hence, a diagnosis of pseudo-exotropia with esotropia was made. The child was managed conservatively and the esotropia was left uncorrected.



**Figure 2:** Fundus photograph showing temporal macular drag (a) in case 1 and (b) in case 2

## Discussion

Cicatricial ROP is known to cause temporal displacement of the macula and a pseudo-exotropia due to the increased disparity between the visual and the pupillary axes.<sup>[1-3]</sup> It may often be confused with true strabismus and is prone to misdiagnosis. Surgery, if planned, should aim at preserving good cosmesis and avoiding worsening of pseudo-strabismus.<sup>[4]</sup>

#### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

#### Conflicts of interest

There are no conflicts of interest.

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