Patients with intermittent exotropia of the divergence excess (DE) type can demonstrate normal stereopsis, anomalous retinal correspondence (AC), and panoramic viewing when deviated, and normal retinal correspondence (NC) when aligned. According to Cooper and Feldman (1979), AC provides the following functional advantages: a rudimentary level of binocular vision while deviated; a mechanism to avoid diplopia and confusion; and a mechanism to restore bi-foveal fixation in the presence of disparity cues.

CASE SUMMARY

History: Patient MH is a 10-year-old Asian female referred to the Vision Rehabilitation Service for an intermittent right exotropia, which has been gradually increasing in magnitude and frequency since receiving strabismus surgery at age 2 years. She also reported intermittent diplopia with spectacle removal. MH underwent a bilateral, lateral rectus recession of 6.75mm to correct approximately a 35 to 40 prism dipters right intermittent exotropia.

Diagnostic testing: Sensory fusion findings pre- and post-vision therapy.

Table 1a: Sensory fusion findings pre- and post-vision therapy

Table 1b: Motor fusion findings pre- and post-vision therapy

Diagnosis: Intermittent right exotropia at distance and near with angle co-variance and accommodative insufficiency/facility.

Treatment plan: Vision training, estimated sessions: 16-20. Therapy techniques were directed to work on the following: base-in and base-out vergence ranges (sensory and motor), accommodation (amplitude and facility), diplopic awareness, anti-suppression, and ocular motor training. See Table 2.

Outcomes: See Tables 1a and 1b (post-vision therapy findings). A total of 14 in-office sessions (45 minutes each) of vision therapy were completed. Post-therapy outcomes resulted in alignment at distance and near, as well as the elimination of diplopia symptoms, without the spectacle.

REFERENCES


