Pseudomyopia in intermittent exodeviation

Dear Editor,

Intermittent exodeviation is one of the most common types of divergent squint seen in the squint clinic.\(^1\) Myopic refractive error plays a role in the etiopathogenesis of intermittent divergent squint.\(^2\) Sometimes pseudomyopia could also be a presenting feature which has to be kept in mind.

A young 29-year-old healthy male presented to the squint clinic with complaints of squint and blurred vision since childhood. On examination his unaided monocular visual acuity was found to be 20/20, N6 in both eyes. Cycloplegic refraction with cyclopentolate 1% was insignificant in both eyes. Evaluation of muscle balance revealed an intermittent divergent squint of 35 prism diopters which was the same for distance and near on alternate prism cover test. Extra ocular movements were full, free and painless. There was no suppression of either eye on Maddox Rod testing. Stereopsis by Fly Test and Lea symbols revealed 400 seconds of arc. A diagnosis of basic exotropia was made and the patient underwent bilateral lateral rectus recession of 8.5 mm from the muscle insertion. On the first postoperative day he had an exophoria of 10 PD for distance and near with preservation of stereopsis. He presented one week postoperatively, complaining that his binocular vision was still blurred. His best corrected visual acuity was 20/20, N6 in both eyes monocular VA was 6/6 in each eye but binocular vision was 20/60, N6 associated with pupillary miosis. He underwent dynamic refraction which showed –2.00DS/-0.50DC at 90 degrees in right eye and –2.75DS in left eye. His negative relative accommodation was less than normal. His cycloplegic refraction was insignificant in both eyes. A diagnosis of pseudomyopia was made. He was started on cyclopentolate 1% eye drops twice daily for three weeks and then tapered off when he was comfortable for both unioocular and binocular vision.

This patient had intermittent exodeviation of the basic type where the distance deviation and near deviation were equal.\(^3\) In some, the distance deviation might be controlled by using tonic fusional as well as accommodative convergence as the patient prefers blurred single image to sharp but double images. Patients with intermittent divergent squint complain of blurred vision when seeing binocularly due to ciliary muscle contraction with accommodative convergence. Blurred vision is not noted when unioocular visual acuity is measured.

In this patient pseudomyopia could have been initially missed due to inadequate binocular vision testing but this is only a speculation as the patient had presented initially with blurred vision. The pseudomyopia persisted because of the residual angle which he wanted to overcome by accommodative convergence. This required the use of cycloplegics to abolish the spasm. This may even warrant the prescription of prisms later if pseudomyopia recurred after cycloplegics were stopped. One has to keep in mind the presence of pseudomyopia under binocular conditions in intermittent divergent squint where accommodative convergence can be used by the patient to control the squint thereby resulting in accommodative spasm with time. We want ophthalmologists to keep in mind
the existence of pseudomyopia in patients with intermittent divergent squint and look carefully for it preoperatively and postoperatively and not miss it as we have done preoperatively in this case.

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