Letters to the Editor

Respond to: Management of exotropic Duane retraction syndrome

Dear Editor,

We thank the authors for showing interest in our article Sharma et al. [1] For clinical management purpose, we have followed Jampolsky’s classification [3] which would mostly comprise the Type II of Huber [3] and not Type III, herein considered as just exotropic Duane retraction syndrome (DRS). The esotropic DRS and Ortho DRS have to be tackled differently.

One needs to clearly understand that the primary problem in all cases of DRS is paradoxic innervation of the lateral rectus (LR) during the adduction, and this cannot be eliminated by any procedure other than total extirpation or periosteal fixation of LR. In exotropic DRS, it is a good strategy to sacrifice the aberrant LR and convert the DRS into LR palsy and improve the abduction by transposition of the vertical recti.

The adduction limitation in DRS is due to the co-contraction of LR and medial rectus (MR) in adduction and improves on periosteal fixation of LR. No surgery on the ipsilateral MR is usually required. The MR is usually normal and should be confirmed by passive ductions, which are of paramount importance and have been mentioned as the first step in operative procedure in the methodology. Adduction improvement was not full in Group B due to the resting tone of partial vertical rectus transpositioning (pVRT) providing some resistance.

The improved abduction, however, is minimal and is mainly due to the relaxed MR action during abduction. Following pVRT, the vertical vectors start working in synergy to aid the abduction tone with the inhibition of the tone of MR helps in abduction. The case A6 shown in picture had no improvement in abduction as shown in Table 1. However, it has been highlighted by Jampolsky, one should not be mistaking the degree of exodeviation as good abduction in exotropic DRS. Fig. 2 clearly demonstrates improved abduction. Statistical tests have not been claimed by us due to small numbers in this pilot study.

Use of VRT in esotropic DRS with abnormal LR innervation can worsen retraction and upshoots and downshoots in adduction. In exotropic DRS, rather than graded recession of the aberrant LR, pVRT done as an adjustable procedure, along with the periosteal fixation seems to be better alternative and will be published soon.

This study clearly establishes the role of periosteal fixation of LR to solve the paradoxic innervation and of the partial

References

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VRT to correct the esotropia thus created and also improves abduction as shown by the two groups. This strategy corrects the anomalous head posture, the deviation in the primary position, the retraction, narrowing of palpebral aperture and upshoots or downshoots in adduction, as well as improves the adduction and convergence, a vital function, as also improves the fields of binocular single vision. The improvement in abduction is minimal but a good value addition.

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