The muscle transplantation and loop myopexy in so-called heavy eye syndrome

Dear Sir,

We thank Bhambwani et al. for their interest in our case report on loop myopexy with muscle transplantation in a patient of the heavy eye syndrome with large esotropia and hypotropia.\textsuperscript{[1]}

The medial rectus was recessed because the forced duction test (FDT) was strongly positive as mentioned. The inferior rectus (IR) muscle showed a mildly positive FDT (as written in the case report),\textsuperscript{[1]} which clearly suggests that the tightness was minimal and was appreciated only minimally in extreme elevation. We do not believe that such minimal tightness of IR can cause such a large deviation and hence was not recessed. Our case report clearly mentions about the mildly positive FDT for elevation.\textsuperscript{[1]}

The effectiveness of transplanted muscle in terms of correction of deviation is a proved one and the fact that the tissue remains viable but would lose its contractile properties is also a known fact.\textsuperscript{[2]} This, however, cannot be compared with a large conventional large recession as suggested by the authors, which would place the new insertion posterior to the functional equator. The ocular motility in a muscle transplant postsurgery remains excellent.\textsuperscript{[2]} The unconventionally large recession invariably ends up in having motility loss. We present pre- and post-operative pictures of another patient who underwent muscle transplant for a large angle esotropia. The postoperative pictures clearly show minimal adduction loss even after muscle transplantation [Fig. 1a-c].

A hemi hang back recession as the authors have suggested\textsuperscript{[1]} will would have two major problems, first the muscle may
creep forward with such a large recession on hang back and the second obvious problem that it would attach to a point which would be posterior to the arc of contact and hence the restriction of ocular motility in the ipsilateral direction would make it a big inconstant procedure [Fig. 2a-c]. Therefore, the transplantation could have been avoid only by putting a segment of silicone band as used in expander surgeries in brown’s syndrome[3,6] [Fig. 2a]. However, the major problem with such a use was that the expander would have to be sutured to the globe for insertion, and second it may get extruded[4] with disastrous results.

At present, we have a series of 35 patients who underwent muscle transplantation (unpublished data, part of it was presented at AIIOC 2014) and a series of 14 patients who has esotropia and underwent muscle transplantation. Most of them have a good ocular motility postoperatively [Fig. 3a-c].

The plan of doing the magnetic resonance and IR recession first and then a lateral rectus resection with loop myopexy would end up having surgery almost on all four muscles with three recti cut and the fourth one having a loop which may restrict its blood supply. This would actually increase the risk of anterior segment ischemia. Moreover, with IR not being tight, we fail to see the logic of operating on the IR in the presence of a minimally positive FDT. We do agree that a high-resolution magnetic resonance imaging would have been preferable than a computed tomography scan.

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