

Revision of Patients with Severe Blepharoptosis and Poor Levator Function Post Tu Flap Procedure

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INTRODUCTION: Surgery is the most effective method of treatment for patients with severe blepharoptosis. Frontalis sling to the tarsal plate is a common method and relatively easier to perform on severe blepharoptosis since its first report by Hess in 1893. However, there are drawbacks for such operation. We had reported Tu flap procedure (transconjunctival, levator sheath sling and advanced levator aponeurosis) to treat severe blepharoptosis with poor levator function previously.¹ The result was acceptable for the ptosis can be corrected and lagophthalmos is always resolved within 4 weeks post operation. Nevertheless, there were still some patients that need revision. This paper described the methods we use to solve this problem.

MATERIALS AND METHODS: Medical records were reviewed for 5 severe blepharoptosis patients with poor levator function (5 eyelids) receiving revision post Tu flap procedure at MacKay Memorial Hospital in Taipei between December 1, 2013 and July 30, 2015. Among the 5 patients, all the levator aponeurosis and levator sheath were dissected again and advanced to the upper of the split-tarsal plate, while the orbicularis oculi muscle was left intact. Outcome measures include margin reflex distance-1, lid slit distance for ptosis correction, width of tarsal plate for excision and eyelid symmetry.

RESULTS: Complete or near complete correction of ptosis (degree of ptosis<1mm) was achieved in all the 5 eyelids in postoperative follow-up. The preoperative MRD1 ranged from -4 to 0 mm with the mean of -3 mm while the postoperative ranged from 2.5 mm and 3.6 mm with a mean of 3.2 mm. The width of tarsal plate to excise ranged from 1.5 mm to 2.0 mm with a mean of 3.52 mm. The preoperative lid slit distance ranged from 0mm to 6 mm with a mean of 3.52mm while the postoperative ranged from 8 mm to 10.1mm with the mean of 8.8 mm. (Fig. 1) The most common complication was lagophthalmos. Immediate postoperative lagophthalmos was transient in all cases and were recovered to normal within 4 weeks.

CONCLUSION: The Tu flap procedure and split-tarsal plate dissection provided significant improvement in patients with severe blepharoptosis and poor levator function with under correction. This method may also use in patients during operation in the first time. It would encourage faster postoperative recovery and overall clinical outcome.

Reference

1. Tu LC, Wu MC, Chiang YP, Li HY, Shieh DB, Chang CC. [What's New in the Treatment of Poor Levator Function with Severe Blepharoptosis.](#) Plast Reconstr Surg. 2015 Oct;136(4 Suppl):100.