

## **Single-triangle versus Fox pentagon frontalis suspension for unilateral severe congenital ptosis correction.**

### **Abstract:**

**Purpose:** To compare the functional and cosmetic outcomes of two different frontalis sling techniques for correction of severe unilateral congenital ptosis: single triangle and Fox pentagon techniques using expanded polytetrafluoroethylene (ePTFE) suture.

**Methods:** This randomized controlled trial included 60 eyes of 60 patients with severe unilateral simple congenital ptosis and poor levator function ( $\leq 4$  mm). Participants were randomly assigned for either single triangle or Fox pentagon frontalis suspension using ePTFE suture. Functional outcome measures were margin reflex distance (MRD1), palpebral fissure height (VFH), and lagophthalmos. Cosmetic outcome parameters (lid contour, lid crease, and height symmetry) were graded as 3 (excellent), 2 (good), or 1 (poor), with a minimum of 18 months' follow-up.

**Results:** At final follow-up, there was a significant improvement in the MRD1 and VFH in both groups, with no statistical difference ( $P = 0.9$ ). Both groups showed comparative cosmetic results regarding lid height symmetry, crease, and contour. The patients in the single-triangle group showed more rapid recovery of postoperative edema and lagophthalmos with less visible forehead scarring. There were no serious ePTFE sling-related complications.

**Conclusions:** In our study cohort, the single-triangle and Fox pentagon frontalis suspension techniques had similar outcomes with respect to MRD1 and VFH and comparable cosmetic results. However, the single-triangle technique avoids two forehead incisions and was associated with less postoperative edema, lagophthalmos, and scarring.