Outer Fascia of Orbicularis Oculi Muscle as an Anchoring Target Tissue in Double Eyelid Surgery.

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INTRODUCTION: Natural adhesion between the levator aponeurosis and the subcutaneous layer in the upper lid is essential for an aesthetically pleasing double eyelid. The study aims to emphasize the outer fascia of orbicularis oculi muscle (OFOOM) as a fixation point on the double eyelid surgery.

MATERIALS AND METHODS: The authors examined the detailed anatomy of the anterior lamella microscopically during 28 cases of primary double eyelid surgery. Three cadaveric dissections were performed adjunctively to compare the dynamic status in the upper lids. Subdermal tissue components and tissue changes in the upper lids were observed in 64 eyelids from secondary revisional cases who had performed an incisional technique previously. The authors also compared the locations of threads in the anterior lamella in 36 eyelids on which a nonincisional surgery technique had previously been used.

RESULTS: At the preferred crease zone in the upper lid, a definite anatomic structure, OFOOM was found between the skin and the orbicularis oculi muscle (OOM). The supratarsal creases created by the incisional technique showed that all of the anterior lamella components were fused tightly together by scar tissue. Examination of the 36 supratarsal creases created by the nonincisional technique showed that threads did not exist in the dermal layer, but were mainly within the OFOOM in 20 eyelids and mainly within the OOM layer in 16 eyelids.

CONCLUSION: To produce satisfactory results during double eyelid surgery, the authors recommend direct suture fixation of the levator aponeurosis to the OFOOM, and not to the dermis or OOM.

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