The Looi Suture Technique for Anchoring the Lateral Tarsal Strip to the Lateral Orbital Wall

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Abstract

Introduction: The lateral tarsal strip procedure (LTS) was first reported by Anderson and Gordy in 1979 for the management of paralytic or senile eyelid laxity. Since its description, the LTS procedure has been subject to several modifications by various authors. In this study, we described the Looi suture technique, a small modification in the technique of suturing the LTS to the lateral orbital wall periosteum. Using this technique, the surgeon achieves a larger area of contact between the anterior surface of the tarsal strip and the lateral orbital wall periosteum, promoting a stronger adhesion. With a double-armed suture, the technique also allows for adjustment of the lower lid tension to avoid over- or under-correction of horizontal lid laxity. This study aimed to evaluate the technique. Materials and Methods: This was a retrospective non-comparative case series of 39 eyelids of 31 patients who underwent LTS with Looi suturing technique for the correction of involutional lower lid laxity which had resulted in either entropion or ectropion. In this procedure, a novel technique utilising a double armed 5/0 Ethibond suture is used to secure the LTS to the lateral orbital rim, with the aim of increasing appositional contact between the LTS and periosteum. Results: In 36 eyelids with entropion, the procedure was combined with lower lid retractor repair, and in 3 eyelids with ectropion, with medial tarsoconjunctivoplasty. Surgery was successful in 37 of 39 eyelids (94.87%) after one procedure. The remaining 2 eyelids required repeat procedures to achieve anatomical success. Both cases had been performed by trainee surgeons under supervision. Postoperative follow-up period ranged from 1 day (in a visiting overseas patient) to 2 years. Conclusion: This study described the Looi suturing technique in performing the LTS procedure and we found it a simple and effective modification when dealing with lower lid laxity.

Key words: Entropion, Lower lid laxity

Ann Acad Med Singapore 2014;43:263-6