Upper Blepharoplasty Skin Closure: Analysis of Outcomes of Subcuticular vs. Running and Absorbable vs. Nonabsorbable Suture

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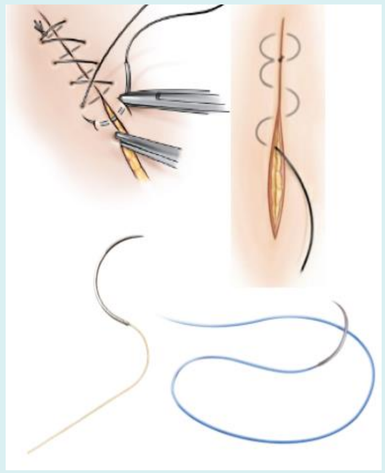
Purpose

- Technique choice for closure of upper blepharoplasty incisions includes sutured and sutureless techniques.[1-7]
- The utility of subcuticular closure of upper eyelid blepharoplasty incisions has been previously validated as a safe and effective closure technique.[1,7]
- However, compared to running closure, subcuticular technique has a learning curve, requires increased surgical time, and removal can be a more challenging suture removal procedure.
- **The purpose of this analysis was to compare the aesthetic and functional outcomes of subcuticular closure to running approximation of upper eyelid blepharoplasty incisions, utilizing both permanent and absorbable sutures.**

Methods

- This is a retrospective analysis of patients who underwent upper eyelid blepharoplasty incision site closure with subcuticular or running approximation with either 6-0 polypropylene suture (prolene) or 6-0 plain gut suture.
- Medical records of 20 consecutive patients who underwent subcuticular closure were compared to 20 consecutive patients who underwent running approximation.
- Each group had a 50:50 ratio of absorbing vs. nonabsorbing sutures.



- Patient charts were reviewed for objective outcomes including postoperative discomfort and aesthetic surgical site healing.
- Postoperative complications such as wound dehiscence or soft tissue infection were also assessed.

Results

Figure 1: External color photograph at postoperative week one following upper eyelid blepharoplasty with absorbable suture closure in a running fashion demonstrating appropriate early healing with moderately visible surgical incision site associated with hyperemia and nodularity

Figure 2: External color photograph at postoperative week one following upper eyelid blepharoplasty with nonabsorbable suture closure in a subcuticular fashion demonstrating excellent early healing with minimally visible surgical incision site.

- Subcuticular closure offered earlier and less noticeable incision site scarring than running approximation.
- There were no cases of dehiscence or infection in this patient cohort.
- Running closure with absorbing suture produced the most cases of epidermal inclusion cysts, followed by running closure with absorbing suture.
- There was no significant difference in regards to postoperative pain.
- The surgical site scar was more noticeable to both the patient and surgeon when running approximation was utilized.

Conclusions

- In this series, the outcomes of subcuticular closure of upper blepharoplasty incisions with either 6-0 polypropylene or 6-0 plain gut sutures were superior to running approximation, with no difference in safety or efficacy of closure.
- Utilization of subcuticular approximation with absorbable sutures offers surgeons versatility and avoids the need for suture removal during the postoperative period, while providing similar aesthetic results to nonabsorbable suture techniques.

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