External Rhinoplasty Columellar Scar Analysis: The Stanford Experience

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INTRODUCTION

Background
There are many rhinoplasty techniques. Rhinoplasty may be approach via an endonasal or an external approach. The optimal approach remains controversial. Patients are often concerned about the cosmetic implications of the columellar scar with an external approach.

Significance
We sought to apply validated subjective and objective measures to assessment of the external rhinoplasty columellar scar. Previous work has used non-validated outcomes to assess rhinoplasty scars. Validated scar assessment scales exist that have been applied to non-rhinoplasty scars.

MATERIALS AND METHODS

103 consecutive external rhinoplasty patients with a minimum follow-up of 2 months were enrolled. Two neutral, blinded facial plastic surgeons evaluated high resolution photographs (300 dpi, 12 megapixel, 6x7 inch) of the columellar region using the validated Stony Brook Scar Evaluation Scale (SBSES). The SBSES assessed five scar components: width, height, color, suture marks and overall appearance. Each component was assigned a score of 0 or 1 with a total sum range of 0 (worst) to 5 (best). (Figure 1)

Patients were given the Patient Scar Assessment Scales (PSAS). Components assessed on the PSAS included scar symptoms and appearance relative to normal skin.

RESULTS

58 patients had photographs available for scar analysis. Average follow-up was 164 days.

The raters gave similarly favorable scores (4.05 ± 1.21 and 4.72 ± 0.64, mean ± SD, for Raters 1 and 2, respectively).

Fifteen revision patients had photographs available for analysis compared to 43 primary rhinoplasty patients. There was a statistically significant difference (p < 0.05) with primary patients showing more favorable outcomes.

25 patients completed the PSAS. Itemized scores ranged from 1.05 to 2.00 on a scale from 1 to 10. (Table 1)

TECHNIQUE

Opening
A mid-columellar inverted V incision is made with a 6700 blade. The incision is continued intranasally 1-2 mm below the lower lateral cartilages.

Closure
The columellar incision is closed with five interrupted 6-0 Prolene sutures. The intranasal incisions are closed with 5-0 chromic gut and 5-0 fast-absorbing gut.

CONCLUSIONS

Overall objective results were favorable for columellar scar outcomes. Objective scar outcomes are less favorable in revision rhinoplasties compared to primary cases. Subjective patient satisfaction is high regardless of primary or revision status. These data may be used to counsel future patients considering an external rhinoplasty.

REFERENCES