Cosmetics and function: quality of life changes after rhinoplasty surgery

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BACKGROUND
The focus on outcomes based research has exploded in the last decade. In nasal surgery, outcomes primarily rely on subjective patient satisfaction with function and appearance of the nose postoperatively, often, the two being intimately related. Because of this, many instruments have been developed to measure a patient's improvement in quality of life after surgery. In the rhinoplasty field these include the Nasal Obstruction Symptom Inventory (NOSE) scale which evaluates nasal function, and Rhinoplasty Outcome Evaluation (ROE) which evaluates nasal shape. Patient satisfaction regarding the nasal shape and function after rhinoplasty surgery have been studied separately before, but no study to date has combined the patient perception of quality of life changes regarding both shape and function in the same patient population.

METHODS
• Retrospective chart review with prospective follow up
• All patients who underwent rhinoplasty or septorhinoplasty in the last 5 years by the senior author were identified.
• Patients who underwent any additional nasal surgeries (e.g., FESS) simultaneous with rhinoplasty were excluded.
• 231 patients were invited to participate; 123 agreed and 113 returned the questionnaires.
• Patients were provided with the NOSE and ROE questionnaires for preoperative and postoperative evaluations.
• McNemar's test was used to compare between pre and postoperative clinical evaluations.
• Paired and student t-tests were used to evaluate pre and postoperative scores for the NOSE and ROE respectively.

RESULTS
• 113 patients participated in this study
• 51.33% male and 48.67% female
• Mean age was 47.56 years with SD 17.27 and range (18 to 91)
• All patients were Caucasian save one
• Mean period of follow-up was 35.6 months with SD 12.2 and range (10 to 64 months)
• Pre and post-operative NOSE scores showed a median difference of 40 with quartiles being 29 and 40 (p value < .0001). Almost 10% of the patients reported worsening of the scores.
• Pre and post-operative ROE scores showed a median difference of 29.2 with quartiles being 12 and 50 (p value < .0001). Less than 10% of the patients reported worsening of the scores.
• No significant difference in improvement in scores primary vs revision rhinoplasty.

CONCLUSIONS
The modern technique of rhinoplasty that includes a functional and structural approach to the nose improves the patients' quality of life regarding both shape and function. Although the technique depends on providing strong structural framework by adding grafts vs. the traditional reduction technique there is significant improvement in patients' quality of life regarding the external appearance and function of the nose.

REFERENCES