Patient Outcomes in Total Rhinectomies

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Objectives
Our objective was to evaluate the outcomes of patients who underwent total rhinectomies and to give physicians a better understanding of patient characteristics, prior treatment modalities, postoperative survival outcomes, and rehabilitation outcomes.

Introduction
Regardless of race of gender, the nose is the most prominent feature of the human face [1]. Because of the chronic and consistent exposure to UV radiation that accompanies this prominence, it is also the most common site of facial skin carcinomas, the most common of which are nonmelanomatous with basal cell carcinomas and squamous cell carcinomas occurring most frequently [2]. Treatment options often include chemotherapy +/- radiation and/or complete removal of the nose via total rhinectomy, a destructive surgical procedure with significant physical and psychological consequences for patients.

Concurrent with previous research, we defined rhinectomy as “the removal of the vast majority of the nasal framework, soft tissues, and skin” [1]. While rhinectomies are occasionally performed for relatively rare diseases like syphilis and leprosy, the most common indication for this procedure is currently malignant nasal neoplasms. Post-rhinectomy rehabilitation options include median/paramedian forehead flaps or a variety of prosthetic options. While recent advances including computer-aided design and manufacturing (CAD-CAM) technology [3] and titanium craniofacial implants [4] have been made, patients are most commonly hand-fitted with silicone prostheses.

Patient Population
Thirty two patients were identified: 12 female, 20 male. The average age at the time of total rhinectomy was 68 with a range of 38 to 88 years.

Methods
A retrospective chart review was performed identifying patients who underwent a total rhinectomy for resection of a malignant nasal neoplasm from 1998 to 2013.

Data

- 32 patients
- 26 patients with nasal prosthesis
- 6 patients without nasal prosthesis

Results
• Seventeen patients were diagnosed with squamous cell carcinoma, 13 patients were diagnosed with basal cell carcinoma, and two patients were diagnosed with adenoid squamous cell carcinoma.
• Nineteen patients had post-operative chemotherapy and radiation.
• Eleven patients had recurrence of their disease with an average recurrence time of 20 months.
• Of the 26 patients were fitted with prosthesis, half had specific complaints, the most common of which regarded poor fit. Irritation was the second-most common complaint.
• Complaints about inconsistent color match, pain, and rhinorrhea occurred less often than those regarding fit and irritation but at approximately the same frequency when compared to each other.
• At the conclusion of this study, 17 patients had expired, nine patients were alive, and six patients had been lost to follow-up.

Discussion
Only eight out of 32 patients who ultimately underwent a total rhinectomy had no record of other prior treatment (e.g., chemotherapy, radiation, etc.), which speaks for the importance of appropriately managing nasal malignancies. Most patients fitted with prosthesis were ultimately unhappy in terms of both appearance and comfort, suggesting a need for better rehabilitation options in order to offer these patients the highest possible quality of life after surgery.

References