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The aging nose
(Long-term results following plastic septal surgery)

by

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Summary

Long-term results after septoplasty in 42 patients older than fifty years of age are studied retrospectively, one to seven years after the operation. The results and complications are similar to those following septoplasty in younger patients. The major source of failure is the presence of alar insufficiency, often overlooked in this group of patients.

Introduction

Septal surgery is the most common surgery upon the nose, mostly applied to younger individuals between 18 and 35 years of age. Much has been written about this group.

Only a small percentage of septoplasties are made upon patients beyond 50 years of age. This may either be due to the surgeon's reluctance to operate upon such patients, knowing that in this age-group, changes in the nasal mucosa, like atrophy, crusting, bleeding etc. may be complications, or because physicians do not refer the patients to the surgeon because they lack knowledge of the possibilities in this field. The increasing age of the population demands a better knowledge of aging processes, including those concerning the nose.

Patterson (1980) and Tardy (1980) described the aging nose, but we have found no papers dealing with long-term results of septal surgery in older patients which is the purpose of this paper.

Material and methods

Inclusion criteria were:

1. Nasal stenosis as the main complaint leading to operation.
2. No previous nasal surgery, except reposition of nasal fractures.
3. Age 50 years or older at time of operation.
4. Observation time of at least one year.
5. At the time of follow-up examination the patients' addresses should be within our county.

From January 1975 to December 1981 a total of 64 patients in this age group had septal surgery in our department. Forty-two patients, 32 men and 10 women (mean age 56 years, range 50 to 66 years) fullfilled our criteria and were re-examined. The observation time was from one to seven years. In all cases a septoplastic operation had been done, and in three patients an additional operation for alar insufficiency had been performed. In five patients nasal polypectomy had also been performed.

Results

As nasal stenosis was the complaint which led to operation, this symptom is the most important in evaluating the success of the surgery.

Pre-operatively (Table I) the symptom was

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TABLE I
SYMPTOMS BEFORE AND AFTER SEPTOPLASTY

	Pre-operatively n %	Post-operatively n %
Nasal stenosis	42 (100)	15 (36)* 10 (24)
Frequent rhinitis/ sinusitis	13 (31)	9 (21)
Crusting	4 (10)	11 (26)

*In 5 patients the symptom was less pronounced after surgery and not unsatisfactory.

present in all patients, post-operatively in 15 patients (36 per cent), but in five of these it was less than before and not unsatisfactory for the patients. Thus, ten patients had an unsuccessful operation (24 per cent). Among these (Table II) the explanation for failure of the operation was alar insufficiency in seven, and in three of these small irregularities of the septum were concomitant findings; in three patients allergic rhinitis was the most likely cause of the stenosis.

In addition, alar insufficiency was found in four patients who had no complaints of nasal stenosis. The insufficiency was of such a degree that the authors found it of clinical importance. As mentioned above, only three patients had an operation for alar insufficiency together with the septoplasty.

Altogether we found 11 patients with unoperated alar insufficiency, 5 men and 6 women. The mean age of these patients was 64 years, whereas the mean age of the whole series was 56 years.

From the medical history it is often difficult to differentiate between sinusitis and rhinitis. Symptoms of these conditions were present in 13 patients pre-operatively (Table I) and in nine of these 13 patients also post-operatively. Five of these nine patients had symptoms or findings consistent with nasal allergy.

Crusting was present in four patients pre-operatively and was neither decreased nor increased post-operatively. Seven patients without prior crusting complained of this condition post-operatively, but none of them were dissatisfied with the operation due to the crusting.

Septal perforation was present in one patient pre-operatively and in two additional patients post-operatively, the operative incidence being 5 per cent. No symptoms were related to the perforations.

Discussion

Although our results, with a failure percentage of 24, are very similar to those of other investigators dealing with younger patients (Peacock, 1981; Dommerby *et al.*, 1985), a major point in our material is the frequent finding of alar insufficiency at the follow-up examination, this being the cause of failure in seven out of ten patients.

The alar insufficiency is often concomitant with a droop of the nasal tip, as described anatomically by Krmpotić-Nemanić *et al.* (1971). Tardy (1980) and Patterson (1980), in their papers, mention alterations of skin elasticity, subcutaneous tissue and cartilage occurring with age and the surgery recommended for these conditions. Vetter *et al.* (1984) have shown that the human nasal septum continues to grow at its anterior free end throughout life, and this obviously contributes to alterations in the nasal airway through life. Septal problems may have produced only minimal symptoms of nasal obstruction earlier in life, but when the described effects of aging are superimposed, the nasal obstruction is intensified. In several instances septal surgery alone will not achieve the goal of free nasal airways and special attention to all structures of the tip of the nose must be paid, especially in the older age-group, in order to give the patients the help they need. Alterations in the appearance due to shortening of the nose and operations for alar insufficiency

TABLE II
CAUSES OF UNSUCCESSFUL OPERATIONS FOR NASAL STENOSIS

	Alar insufficiency	Allergy
Straight septum	4	2
Irregular septum	3	1
Total	7	3

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must be carefully discussed with the patients before the operation. In our study there seems to be no effect or very limited effect upon sinusitis/rhinitis following septal surgery. This is in opposition to Stoksted (1969), operating on younger persons, but his indications for septal surgery are not quite clear; his results were based on the nasal airway, but several patients had free nasal passages pre-operatively.

Crusting in our material is much the same as in other series (Dommerby *et al.*, 1985). It might be that crusting increases post-operatively because of the improved air passage. A nose blocked by a septal deformity does not contain crusts behind the deformity. This crusting might not be a complication but a normal physiologic condition due to the drying effect of the air now passing through the nose. None of our patients were dissatisfied with the operation on this account.

Septal perforations were few and this compares favourably with the results of authors describing low percentages (Stoksted and Vase 1978; Dommerby *et al.*, 1985).

Conclusion

Septal surgery in persons over 50 years of age is worthwhile and late complications, such as crusting and septal perforations, are no more frequent than in younger age-groups. Often septal surgery alone will not give the patients free nasal airways. Owing to aging processes, shortening of the nose and correction of alar insufficiency is often also necessary, and alterations in appearance due to these operations must be carefully discussed with the patients before operation.

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