LENGTHENING THE SHORT NOSE

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Introduction

The short nose can be a challenging problem. It can present in the primary rhinoplasty patient, especially in those with congenital facial malformations. More commonly, however, it is a complication seen in patients who have undergone previous nasal surgery. These patients generally have problems related to either the failure to correct or to identify a specific preoperative attribute or the aggressive resection of certain nasal structures. In either case, the mechanism involved in creating the short nose must be understood. The reconstruction will mainly focus on rebuilding of adequate tip-support structures of the nose.

Facial Analysis

Most patients with a short nose are obvious to the observer. However, it is important to understand the normal and abnormal nasofacial relationships and what defines a true short nose deformity. A decrease in the length of the nasal dorsum in relation to other structures of the face defines the short nose. Objective measurements can be found by dividing the face into vertical thirds. The middle third, measured from the glabella to the subnasale, should be proportional to the upper and lower third of the face. Authors have suggested that the height of the nose as measured from the radix to the subnasion should be about 47% of the height of the face from menton to radix.1 The short nose also has a decreased distance from the nasion to the tip-defining points. The ideal length of the nose measured from nasion to the nasal tip has been described by Goode as a ratio of projection to nasal length of 0.55:1 to 0.6:1.2 Although this holds true for patients with proper nasal projection, it is a less effective tool for evaluation of the poorly supported, under-projected nose. Good aesthetic judgment requires use of total facial proportions when evaluating revision cases.

The length of the nose can also be shortened by increasing the angle of rotation of the nasal tip. The ideal nasolabial angle should be between 90 and 115 degrees. This angle is measured from a line drawn to the subnasion to the upper lip vermilion border and another drawn from the subnasion along the columella. Finally, the nasofacial angle should be between 30 and 40 degrees. It is an acute angle measured from the facial plane, a line drawn from the nasion to the pogonion, at the radix to the nasal tip.

In patients with a short nose, findings include over-rotation of the nasal lobule, under-projection of the tip, relative over-resection or under-development of the nasal dorsum, exaggerated “double break,” and retraction of the alae with alar-columellar disproportion. Revision rhinoplasty patients may also have findings that don’t fit well into ideal nasofacial relationships. For example, patients with only a low radix or poor upper-third support may appear to have a short nasal dorsum but in fact have normal nasofacial relationships. Nasal tip-defining points may be oriented more superiorly than expected based on the position of the columella and the nasolabial angle. Also, under-correction of tip projection with over-correction