The Deviated Nose and Groomed Eyebrows: An Important Trap to Avoid

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Abstract

Background: Midpoint of the distance between the medial eyebrows is a common midline reference during facial analysis for rhinoplasty. Failure to recognize asymmetrically positioned eyebrows, often altered by the patient to camouflage nasal asymmetry, can lead the surgeon to design the rhinoplasty using a faulty midline landmark.1-5

Purpose: To investigate the frequency of eyebrow asymmetry and to test whether rhinoplasty patients groom their eyebrows to compensate for nasal deviation.

Methods: Life-size photographs of 100 rhinoplasty patients were randomly selected from the senior author’s practice. Nasal deviation from the midpoint of the intercanthal distance was measured at standardized levels on AP views corresponding to the nasal bones (NB), upper lateral cartilages (ULC), and nasal tip (T). The maximally deviated parameter (MAX) was noted. The direction of eyebrow shift was then compared to the direction of nasal deviation (Figure 1).

Results: Of the 27 males and 73 female studied, 96 patients had measurable eyebrow asymmetry, including 96% of males and 96% of females. The mean eyebrow shift distance for males (1.8 mm) and females (1.4 mm) was not significantly different (p = 0.056) between the genders. All 100 patients had at least one level of nasal deviation. Nasal bones were deviated in 92 patients, ULC in 96 patients, and tip in 90 patients, with mean deviation distances of 0.85 mm, 1.2 mm, and 0.97 mm, respectively. The direction of eyebrow shift correlated significantly with the direction of nasal deviation for NB (p=0.0018), T (p=0.0032), MAX (p=0.039) but not for ULC (p=0.54).

Figure 1. Measurement of eyebrow position and nasal positions
**Conclusion:** The significant correlation between eyebrow position and nasal deviation direction suggests that the majority of patients strategically groom their eyebrows to compensate for nasal deformities. Furthermore, the alarmingly high incidence of nasal deviation in this population emphasizes the value of a circumspect preoperative nasal analysis in reducing the incidence of residual postoperative nasal deviation. Use of the facial midline bisecting the intercanthal distance in the absence of orbital dystopias during nasofacial analysis is one strategy for avoiding the trap of missing nasal asymmetry because of altered eyebrow position.

**References**

**Disclosures**
Bahman Guyuron, MD: Ownership—Innovative Medical Equipment
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