Sonography of nasal tip anatomy and surgical tip refinement

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The amorphous or wide nasal tip is the most commonly encountered nasal tip deformity, but little has been done to measure the effect of standard rhinoplasty techniques on nasal tip width. In the clinical routine, nasal tip width and soft-tissue cover thickness are estimated by inspection and palpation rather than by measurement. In this study, a B-mode sonograph with a 12-MHz transducer was used in a noncontact mode to measure tip width 0.5 cm occipital to the tip defining point, distance between the alar cartilage domes, and thickness of the soft-tissue cover overlying the lower lateral cartilages. These parameters were measured 3 to 8 weeks before and 56 days to 19 months after a transdomal suture tip plasty in 18 patients. The distance between the alar cartilage domes seemed to be an important factor for tip width because interdomal distance, not soft-tissue cover thickness, correlated with tip width before surgery (correlation: 0.53). Conversely, the degree of tip refinement correlated with preoperative soft-tissue cover thickness (correlation: 0.75), but not with interdomal distance. Ultrasonic imaging of nasal soft tissues may help to assess the effect of different tip refining procedures and other soft-tissue changes after rhinoplasty.