Evaluation Of Nasal Tip Definition In Rhinoplasty

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INTRODUCTION: Trends in rhinoplasty have seen a significant shift from closed to open techniques in the last decade [1,2]. Greater control of multiple aesthetic variables have led to this, making open rhinoplasty the procedure of choice in all but the simplest rhinoplasties. However, even in minor 'hump reduction' cases, there may be aesthetic shortcomings using a simplistic traditional closed technique. This traditional approach has been observed; in particular, to create a consistent profile with poor tip definition. Our aim was to analyze, by objective and subjective means, the loss of nasal tip definition in a series of closed rhinoplasty patients.

MATERIAL AND METHODS: Thirty patients who underwent primary closed rhinoplasty by a single surgeon were photographed over a 8 year period. None of these cases had large or prominent alar cartilages, as by definition these were regarded as complex cases more suitably addressed by an open technique. Nasal analysis was assessed using four standard anthropometric measurements (nasolabial angle, columellar-lobular angle, tip projection and supratip break) using post-operative photographs.

RESULTS: Thirty patients who underwent primary closed rhinoplasties were included. Nasal analysis revealed a wider nasolabial angle (mean 104°), a narrower columellar-lobule angle (mean 29°) and a mean tip projection of 0.63 which is considered inadequate. Upon analysis of a panel of the post-operative photographs, there was a pattern of poor tip definition. This tip profile was rounded with no clear tip defining point and little supratip break or concavity (Figure 1).

CONCLUSION: The panel of photographs, which display the aesthetic outcomes in closed rhinoplasty show a clear lack of tip definition; this can be largely attributed to the loss of the tip defining points of the nose. Although it would seem that performing closed rhinoplasty for simple dorsal hump abnormalities is an ideal surgical approach as it is relatively straight forward, this study identifies its shortcomings. Without additional manoeuvres support tip projection, the traditional approach leads to a poorly defined tip. We must conclude that the indications for traditional closed rhinoplasty are diminishing.

REFERENCES:

1. Adamson PA & Galli SK (2005) Rhinoplasty approaches: current state of the art. *Archives of facial plastic surgery* 7(1):32-37.
2. Sheen JH (1997) Closed versus open rhinoplasty--and the debate goes on. *Plastic and reconstructive surgery* 99(3):859-862.

FIGURE LEGEND:
Figure 1. Graphic depicting the the reduced tip projection (green area) and narrow columellar-lobular angle (pink area) associated with the traditional closed technique.