ONLINE EXCLUSIVE

Lip lift with bull-horn flap for lip and nasal reconstruction

BY ANTHONY G BARABAS

This 54-year-old female patient had a basal cell carcinoma (BCC) excised from the junction of her right upper lip and nasal sill, with the BCC extending onto the lower rim of her right nasal alar (Figure 1). The patient wanted a hidden scar, no lip asymmetry, and was keen to avoid a skin graft or visible flap. She had a long philtral height of 16mm and an upper lip labial height of 4mm. She was therefore a good candidate for lip lift surgery as her philtral-labial score (philtral height divided by labial height) was four. Using the labial classification system of Rapheal P et al. [1] a philtral-labial score between three and four in a patient with a long philtrum is classed as a type two labial defect. Patients with scores above three and a long philtrum are suitable for treatment by lip lift surgery, as are all patients with a philtral-labial score above five (type three labial defect). Depending on the severity, a 3–12mm resection from the nasal sill is performed in cosmetic lip lift surgery with the goal of reducing the philtral-labial score to below three.

The BCC was completely excised with a 2mm margin, resulting in 6mm defect on the upper lip and 3mm defect on the lower rim of the right nasal alar. There was 10mm of upper lip skin remaining between the defect and vermillion border which, with a labial height of 4mm, would result in a philtral-labial score of 2.5. A bull-horn lip lift technique [2] was therefore chosen to reconstruct the BCC defect using a 6mm excision of skin below the nasal sill designed to incorporate the 6mm upper lip BCC resection defect. To reconstruct the 3mm right nasal alar rim defect the skin from the right alar groove portion of the bull-horn lip lift was not excised but retained and raised as an inferiorly based 'bull-horn' flap (Figure 2). This was then transposed medially and inset along the inferior rim of the nasal alar.

The choice of a lip lift to reconstruct this defect provided a good cosmetic result with the scar hidden along the nasal sill and reduced the philtral-labial score to below three (Figure 3 and 4). It avoided the use of a skin graft or a more visible flap and avoided any asymmetry from raising or reconstructing the right lip on its own. Lip lift has not previously been described as a technique for upper lip nasal sill reconstruction following cancer resections. In addition, the 'bull horn' flap has not been described for lower nasal alar rim reconstruction. Lip lift should be considered as an option in any patient with an upper lip defect and a philtral-labial score above three as it gives an excellent cosmetic outcome.

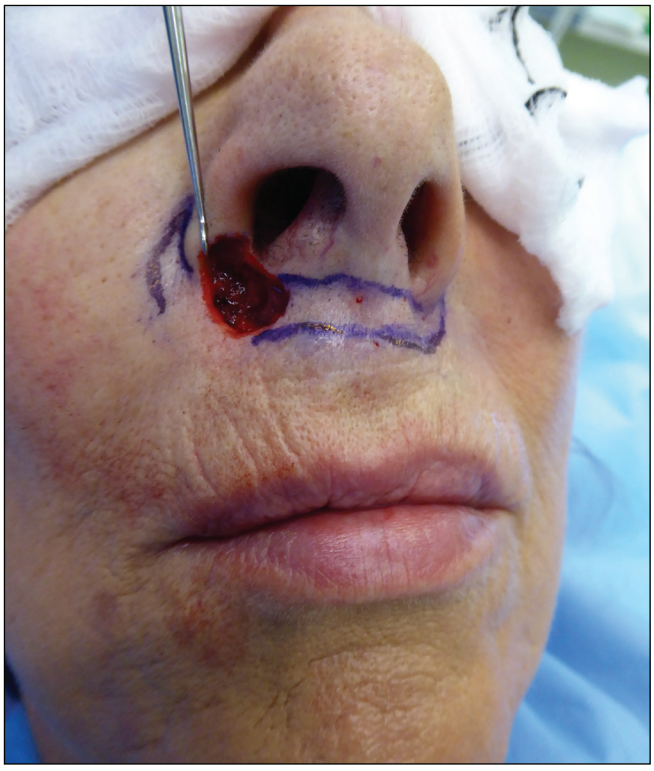


Figure 1: Right upper lip and nasal alar defect following BCC resection.

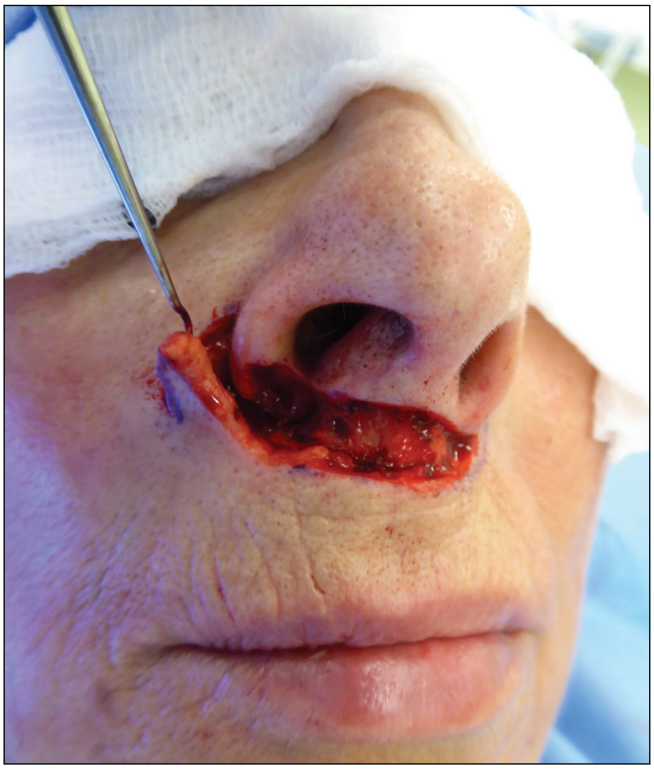
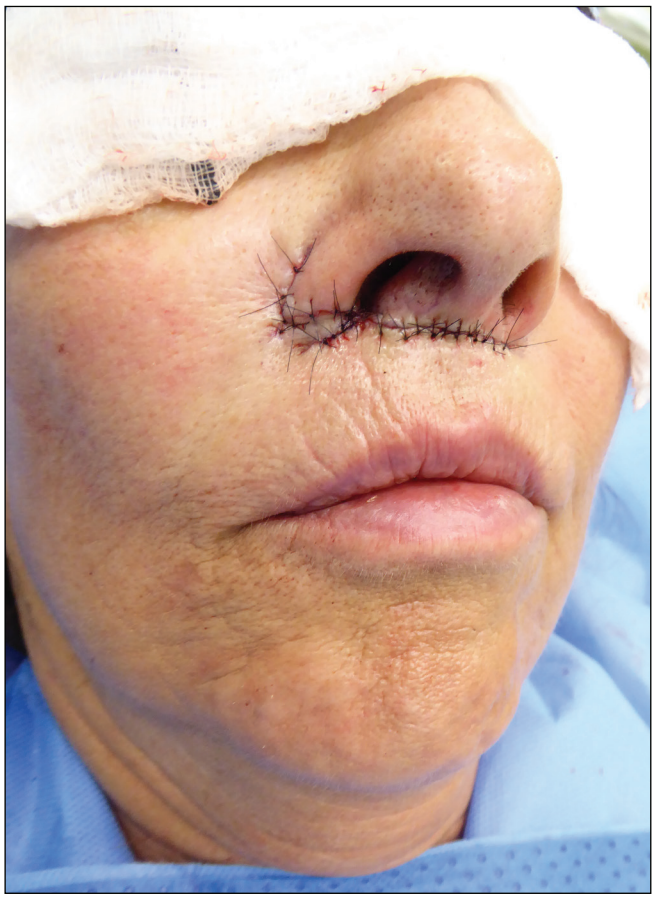


Figure 2: Lip lift resection and bull-horn flap raised.



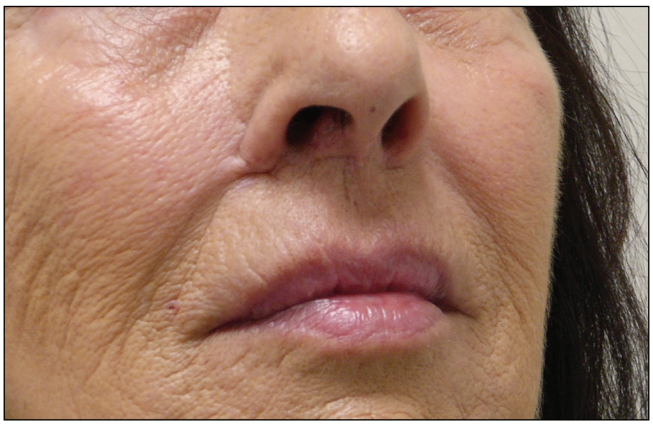


Figure 3 (left) and 4 (above): Completed lip lift with bull-horn flap inset.

References

1. Raphael P, Harris R, Harris SW. Analysis and classification of the upper lip aesthetic unit. *Plast Recon Surg* 2013;**132(3)**:543–51.
2. Ramirez OM, Khan AS, Robertson KM. The upper lip lift using the 'bull's horn' approach. *J Drugs Dermatol* 2003;**2(3)**:303–6.

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Declaration of competing interests:

None declared.