The columella is unique, and though it is a small unit, its reconstruction poses a challenge to the plastic surgeon. Converse considered the columella as one of the most difficult structures to reconstruct. Several techniques have been described for columella reconstruction—composite grafts, local flaps, and distant flaps. A case utilizing the nasocheek flap with a septal cartilage strut is described here.

CASE REPORT

A 61-year-old male patient presented with a mass in the columella, involving the membranous septum and sill (Fig. 1). The result of the biopsy proved this to be a basal cell carcinoma. He underwent Mohs micrographic surgery. The final defect involved the whole of the columella, membranous septum, medial aspect of nasal sill, and the upper medial aspect of upper lip at the base of the columella (Fig. 2)

Flap design as described by Akbas et al was done. The columella was formed by the thin pliable tissue of the nasojugal area (Fig. 3). In addition, a septal cartilage graft was harvested from the posteroinferior part of the septum to which there was already access by just elevating the septal mucoperichondrium on either side. This was used as a strut for the columella. The incisions for elevating the flaps on either side resulted in perialar advancement for the reconstruction of the lip defect.

The flap showed no area of ischemia or congestion postoperatively. Patient was a smoker but had stopped smoking 2 weeks before the procedure.

At 3 months, a refinement of the sill area was done. The final result was a columella of excellent contour (Fig. 4) with adequate support provided by the septal cartilage strut. The donor site was well hidden at the sulcus.

DISCUSSION

Columella defects can result from trauma, infection, or tumor excision. The columella has always been a difficult unit to reconstruct. There are various methods described in literature. These include composite free graft from ear, nasolabial flap, forehead flap, and extended Abbe flap.

The forehead flap, which is the workhorse for nasal reconstruction, in this case, would have required the lip and sill to be reconstructed as the initial step.

Disclosure: The author has no financial interest to declare in relation to the content of this article. The Article Processing Charge was paid for by the author.
to provide a base for the subsequent forehead flap. Moreover, this involves a staged procedure with a scar on the forehead. The extended Abbe is useful for a larger upper lip defect. But this is multistage and leaves a scar on the lower lip, which has a high propensity to hypertrophy.

The use of cheek flaps for columella reconstruction has been described earlier as an island flap. The method described by Akbas et al is ideal for the columella, sill, and membranous septum complex, which may also involve the upper lip. An additional step of adding a columella strut prevents the collapse of the columella postoperatively giving a superior aesthetic result. This can be done in a single stage with almost no donor site morbidity.

Rajshree Jayarajan, MCh
Department of Plastic Surgery
Leicester Royal infirmary
Leicester LE1 5WW
United Kingdom
E-mail: rajshreecj@gmail.com
ACKNOWLEDGMENT
I thank Dr. John McKenna, Consultant Dermatologist and Mohs Surgeon, Leicester Royal Infirmary for the Mohs procedure performed on the patient, which ensured complete tumor resection with maximum tissue preservation.

PATIENT CONSENT
The patient provided written consent for the use of his image.

REFERENCES
1. Converse JM. Reconstructive Plastic Surgery. Philadelphia: WB Saunders; 1977:1269–1271.
2. Akbas H, Keskin M, Guneren E, Eroglu L, Demir A. Reconstruction of columella, membranous septum, and upper lip in a single stage operation. Br J Plast Surg. 2003;5:291–292.
3. Lewin ML. Congenital absence of the nasal columella. Cleft Palate J. 1988;25:38–63.
4. Zapater E, Simon E, Ferrandis E, Vendrell JB. Reconstruction of upper lip, columella and premaxilla with an extended Abbe flap: report of a case. Auris Nasus Larynx. 2002;29:305–308.
5. Kaplan I, Ben-Bassat M. Bilateral cheek island skin flaps. In: Grabb’s Encyclopedia of Flaps. Volume 1, 1st ed. Boston: Little, Brown and Company; 1990: 262–263.