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Our algorithm for nasal reconstruction☆

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Summary Nasal reconstruction is always challenging for plastic surgeons. Its midfacial localisation and the relationship between convexities and concavities of nasal subunits make impossible to hide any sort of deformity without a proper reconstruction. Nasal tissue defects can be caused by tumor removal, trauma or by any other insult to the nasal pyramid, like cocaine abuse, developing an irreversible sequela. Due to the special characteristics of the nasal pyramid surface, the removal of the lesion or the debridement must be performed according to nasal subunits as introduced by Burget. Afterwards, the reconstructive technique or a combination of them must be selected according to the size and the localisation of the defect created, and tissue availability to fulfil the procedure. An anatomical reconstruction must be completed as far as possible, trying to restore the nasal lining, the osteocartilaginous framework and the skin cover.

In our department, 35 patients were operated on between 2000 and 2002: three bilobed flaps, five nasolabial flaps, two V-Y advancement flaps from the sidewall, three dorsonasal flaps modified by Ohsumi, 19 paramedian forehead flaps, three cheek advancement flaps, three costocondral grafts, two full-thickness skin grafts and two auricular helix free flaps for alar reconstruction.

All flaps but one free flap survived with no postoperative complications. After 12–24 months of follow-up, all reconstructions remained stable from cosmetic and functional point of view.

Our aim is to present our choice for nasal reconstruction according to the size and localization of the defect, and donor tissue availability.

Nasal reconstruction is challenging for plastic surgeons, demanding thorough understanding of the nasal anatomy, skilfulness in reconstructive techniques and sense of beauty.

The defect to be restored is created after tumor removal, traumatism or any other insult to the nasal

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Table 1 All cases are presented in detail along with the surgical procedure performed in each case

Gender	Age	Etiology	Location	Procedure	Layer	Complication
Female	43	BCC	Dorsum + Tip + Left ala	Forehead flap	Skin	None
Female	71	BCC	Dorsum + Tip + Left ala	Forehead flap + Cartilage graft	Skin + Cartilage	None
Female	50	BCC	Left ala, excluding alar rim	Cheek advancement flap	Skin	None
Male	55	BCC	Tip	Bilobed flap	Skin	None
Male	75	BCC	Left ala	Forehead flap + Cartilage graft + NL turnover flap for lining	Full thickness	None
Male	81	BCC	Anterior half right ala + Lobule + Columella	Forehead flap + Cartilage graft	Skin + Cartilage	None
Male	68	BCC relapse	Left sidewall	Forehead flap + Cheek advancement + Cartilage graft	Skin + Cartilage + Bone	None
Male	79	BCC	Right ala	Folded forehead flap for cover and lining + Cartilage graft	Full thickness	None
Male	42	BCC	Tip + Lobule	Forehead flap	Skin	None
Male	69	SCC	Vestibule from soft triangle	FTSG	Lining	None
Female	64	BCC	Anterior right ala sparing the rim	V-Y advancement flap from the sidewall	Skin	None
Male	77	BCC relapse	All subunits	Forehead flap	Skin	None
Male	81	BCC	All subunits	Forehead flap + Cartilage graft + NL turnover flap	Skin + Full thickness in right ala	None
Male	81	SCC	Left ala	NL turnover flap + FTSG	Skin	None
Male	37	Sarcoma	Dorsum + Tip	Forehead flap	Skin	None
Female	33	Cocaine abuse	Middle vault + Left alar colapse	Costocondral graft	Cartilage + Bone	None
Female	76	BCC	Left tip and lobule	Dorsonasal flap	Skin	None
Male	69	BCC	Tip + Left ala + Dorsum	Folded forehead flap for cover and lining + Cartilage graft	Left ala full thickness + Cartilage	None
Female	74	Sarcoma	Tip	Forehead flap + Hinge flap	Full thickness	None