

Tailored Nasal Reconstruction after Dog-Bite Injury in a Young Woman

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Indian J Plast Surg 2020;53:157–158

Due to the prominence in the facial framework, nose is commonly susceptible to accidental injury, with functional and psychological related damage. The aim of nasal reconstruction is the full restoration of the complex nasal architecture, made on concave and convex osteocartilaginous surfaces with cutaneous and mucosal linings.

Optimal treatment is still debated. According to literature, standard criterion for nasal reconstruction is the frontal flap.¹ Despite its safety and reliability, due to a robust pedicle and large amount of tissue, this option implies a central-facial esthetic defect. Auricular composite grafts can be a good option, taking into account the minor donor site comorbidity and esthetic defect. However, viability remains a concern and affects the maximal graft width, as recommended by Ahuja et al.² Most failures occur in tobacco users or in cardiovascular and diabetic patients where microvascular circulation can be compromised.³ A tailored therapy has to be planned based on age, sex, and comorbidities.

Herein, we present a 28-year-old female patient, victim of dog bite resulting in avulsion of the right nasal ala with irregular wound (1.8 cm × 2.0 cm). The defect included several

nasal subunits (partial nasal tip, medial third of right alar cartilage, and soft triangle) besides the total avulsion of skin, subcutaneous fat, cartilage, and mucosa, falling in IIIB category of modified Lackmann's classification for facial wound.⁴ The avulsed portion was not retrieved. The patient immediately refused the forehead flap reconstruction, scared by predictable poor esthetic results. Considering young age and absence of comorbidities, we opted for an immediate nasal reconstruction with auricular composite graft.⁵ This choice would not compromise an eventually second reconstruction with the gold-standard flap. Furthermore, we fully informed the patient about the possibility of a secondary surgical procedure with frontal flap in case of composite graft failure.

The homolateral helix was chosen as donor site and the graft was demarcated and sculpted based on the size and shape of the nasal defect, to harvest a cutaneous and cartilaginous flap. Donor site's defect was remodeled at the end of the procedure using a superior-based preauricular rotation flap (→ Fig. 1).

At 1-year follow-up, nasal ala shape was stable, color was consistent with surrounding tissue, and satisfactory

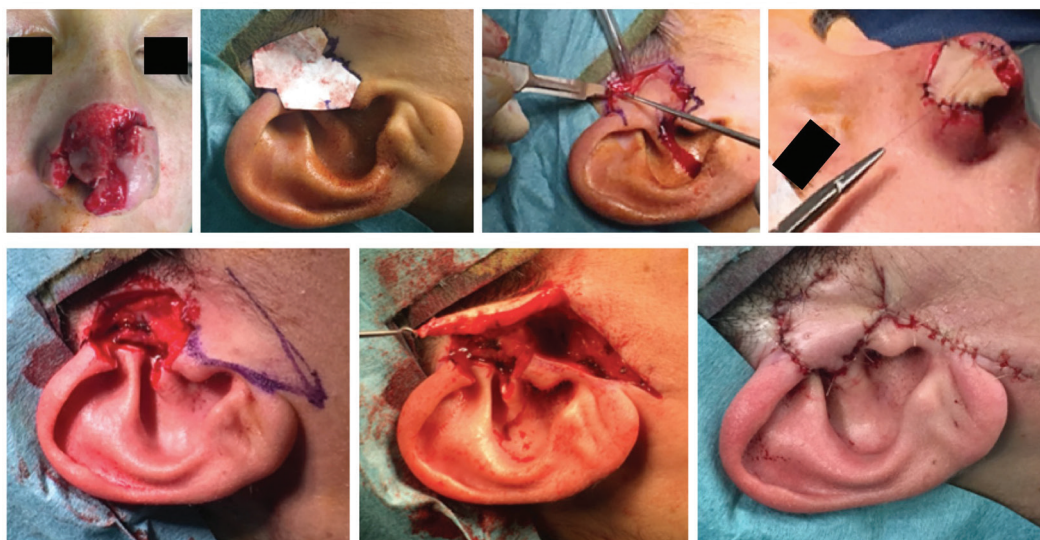


Fig. 1 Surgical steps of the nasal and donor site reconstruction.



Fig. 2 Pre- and postoperative results comparison at 1-year follow-up.

symmetry was achieved without aesthetic defects in size and framework of the ear (► **Fig. 2**).

Auricular composite graft demonstrated to be a safe option to reconstruct nasal ala injuries in young healthy patients when no conditions of reimplantation exist.

Conflict of Interest

None declared.

References

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