

Nasal Reconstruction with Bilobed Flap at a Secondary Health Care Centre in India- A Case Report

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ABSTRACT

Reconstruction of the surgical defect after trauma has always been a significant challenge for the surgeon. The Zitelli's bilobed flap is a commonly used local flap used for the reconstruction of small nasal defects, especially on the distal third of nose. This clinical report portrays the use of bilobed dorsonasal flap and aesthetic outcome of nasal reconstruction done at a secondary health care center situated in a remote hilly location.

Keywords: Bilobed flap, nasal reconstruction, nasal tip defect, Zitelli's design.

INTRODUCTION

Mutilation of noses can occur as a result of trauma, infection or tumor. It is important for nasal reconstruction to preserve color, thickness and texture. Reconstruction of the surgical defect of nose can be done by direct suturing or free skin grafts or flaps. This is a case report of a defect of tip of nose after trauma, which was reconstructed using the modified bilobed flap (Zitelli's design).^[1]

CASE PRESENTATION

A 32 year-old male patient with loss of soft tissue at tip of nose after road traffic accident (Fig. 1), reported to the ENT department, of our hospital, which is a secondary care center located in a remote hilly area of Himachal Pradesh, India. Initially, the patient was treated with intravenous antibiotics for local infection. The patient was informed about the surgical procedure and written informed consent was taken. The surgical procedure was done under local anesthesia. During procedure,

two arcs were marked to define the boundaries of the flap and its proper angulations. The area along the markings was infiltrated with 2% xylocaine with adrenaline. The bilobed flap was obtained from the nasolabial region. The primary lobe was located between the defect and the dorsum of nose and was slightly larger than the primary defect. The second lobe was located in the side of nose and was slightly smaller than the primary lobe. The second lobe was slightly longer, had a narrower base than the first lobe, and was excised with a triangular tip which produced a linear scar and decreased the chance of having a dog ear.^[2] Incisions were made along the previously described markings. The lobes were elevated above the periosteal and perichondrial planes and the pedicle portion was separated with blunt dissection to preserve the blood supply to the deep tissue (Fig. 2). The two lobes were transposed to their final locations and the resulting primary and secondary defects were repaired by rotation of the two lobes. A 5-0

absorbable monofilament suture was used to close the skin. The stitches were removed from the skin 7 days later. The patient is on regular follow up with no evidence of recurrence or alteration in flap contour (Fig. 3).



Fig. 1 Pre-operative photograph showing incision markings



Fig. 2 Intraoperative photograph showing the pedicled flap



Fig. 3 Postoperative photograph taken at 8 months follow up

DISCUSSION

Zitelli's bilobed flap was used for the reconstruction of nasal defect in the

present case. The bilobed flap is the repair of choice for defects of the lower third of the nose. [1] It was first performed by Esser in 1918. A modified bilobed flap technique was introduced by Zitelli (1989) which had smaller angles of flap transposition as compared to the original bilobed flap technique [1] which decreased the severity of "dog ear" deformities along the border of the flap. Moreover, it resulted in less alar displacement as lower wound tension was produced during flap rotation. The bilobed flap allows for the use of local tissue well matched in color and texture to the local site producing excellent cosmetic results. [3] However, the surgeon must be acutely aware of the influence of the size of the lobes when using the bilobed flap, as both the width and the length of the lobes can affect the final incomes of reconstruction. [4] However, this technique is only suitable for small and medium sized defects measuring between 0.5-1.5 cms, due to the limited size of the primary lobe. [5]

CONCLUSION

Nasal soft tissue reconstruction is a challenging procedure for the surgeon. Modified bilobed flap is a reliable flap for defects of the lower third of nose. It is a relatively simple procedure to learn which can be performed in a secondary health care facility. It can provide excellent outcomes if it performed meticulously.

ETHICAL STATEMENT:

Source of Funding: None

Conflict of Interest: All authors declared that they have no conflict of interest

Ethical Approval: The procedures performed in this study were in accordance with the ethical standards of the institution and with the 1964 Helsinki declaration and its later amendments.

Informed consent: Prior written consent was taken from the patient.

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