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RECONSTRUCTION OF NOSE AND UPPER LIP WITH REVERSE KARAPANDZIC & MEDIAN FOREHEAD FLAP – A CASE REPORT

Oncology

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ABSTRACT

A 70 years old male patient presented to our hospital with bleeding from a fungating mass below the tip of the nose. A biopsy was taken and revealed the lesion to be moderately differentiated squamous cell carcinoma. Excision of the tumour required removal of tip of the nose including the lateral nasal cartilages and some of the nasal septum and part of upper lip. Nasal reconstruction was done by using median forehead flap and lip reconstruction was done by reverse karapandzic flap. The patient had a good appearance and his family was also satisfied with results. We think that this type of reconstruction is suitable for cancer involving nose and upper lip.

KEYWORDS

Nasal Reconstruction, Upper lip reconstruction, Median Forehead Flap, Reverse Karapandzic Flap

1. Introduction

Nose being at the centre of the face anyone who sees you sees the nose first. Generally people come at early stage as soon as they noticed any lesion over nose, but some people in rural area don't have any nearby doctor so come at late stage when lesion increased in size. The foul smell of the cancerous lesion, the altered shape, the bleeding from the tumour and the community avoidance are all factors that can make the patient to visit oncology doctors. The patient presented in this case was found to have moderately differentiated squamous cell carcinoma in biopsy report. Nasal and Upper lip reconstruction was done in an appropriate way so that patient is well accepted in family and community.

2. Case Report

A 70 years old man presented to Gujarat Cancer Research Institute with bleeding from a fungating mass below the of tip of nose. According to the patient and his family, the lesion started as a small boil of 7 months duration and was gradually increasing in size. Multiple attacks of bleeding from the mass occurred. Patient had a past history of myocardial infarction 2 years back. At present patient is on medication for the same. The local examination showed a bad odour fungating mass of a size 5.5 × 5 × 3.5 cm occupying the tip of the nose, dorsum, columella and lateral nasal cartilages and upper lip (fig. 1). The mass had raised everted edges with irregular surface margins and minimal bleeding from it. There were no palpable lymph nodes in the neck. Anterior portion of the cartilaginous nasal septum and upper lip was infiltrated by mass. Nasal bone and paranasal sinuses were not involved. There was no intracranial extension. Under general anaethesia the lesion was excised & 1 cm safety margin kept. Specimen was sent for histopathological examination which was reported as moderately differentiated squamous cell carcinoma,. There was involvement of the anterior and lateral margins with the tumour cells. The case was discussed with plastic surgeon and oncology surgeon meeting and the plan was explained to patient's relatives.

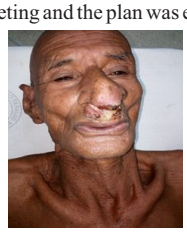
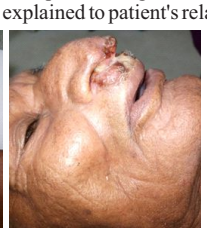

Fig. 1 **Fig. 2**

70yr Male with Mass lesion below tip of nose and upper lip- front view and lateral view

Operative Procedures

Wide local excision was done under general anaesthesia. This resulted in amputation of tip of the nose with loss of most of the alae on both sides, loss of most of the septum and loss of the upper and lower nasal cartilages.

Upper lip reconstruction was done by reverse karapandzic flap.
The nose was reconstructed by using a median forehead flap based on the right supratrochlear artery.

The raw area was covered with a forehead flap based on the right supratrochlear artery after designing it in the shape of the nose.
The donor area of the flap was closed in two layers. No need to take skin graft for that.

The patient was kept on medications and dressings postoperatively. The flap was found well viable. He was discharged from the hospital 1week postoperatively.

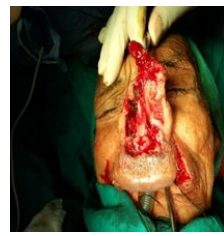
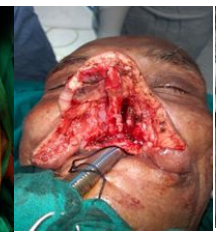
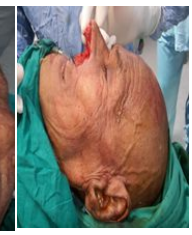

Fig. 3 **Fig. 4** **Fig. 5**

Wide local excision of mass Excision of nasal cartilage, ala, upper lip front and lateral view.

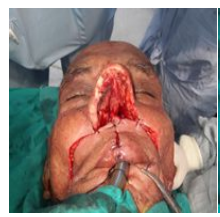
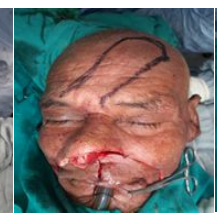
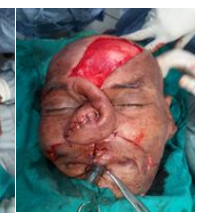

Fig. 6 **Fig. 7** **Fig. 8**

Upper lip reconstruction with Reverse Karapandzic Flap -Nose reconstruction with median forehead flap

Fig. 9 Final look of patient

3. Discussion

The history of nasal surgery goes back to many centuries BC. Edwin Smith in 1862 discovered an Ancient Egyptian papyrus which is considered as the oldest known surgical treatise dated to the old kingdom from 3000 to 2500 BC. It included among its subjects surgery of the nose [1].

In ancient India, Sushrata used the forehead flap for nasal reconstruction about 700 BC as amputation of the nose was a way of punishment at that time [2].

Till now the forehead flap is considered as the best option for nasal reconstruction due to its superb colour and texture match, vascularity and ability to resurface all or part of the nose [3]. The forehead flap is an axial flap based on the supratrochlear artery. The supratrochlear artery is found to consistently exit the superior medial orbit approximately 1.7 to 2.2 cm lateral to the midline, and continues its course vertically in a paramedian position approximately 2.0 cm lateral to the midline [4] [5].

The forehead flap surgery is usually done on two stages of flap inset and later on flap division. Some surgeons prefer to get it done on three stages by adding a stage of flap thinning in between which was not necessary in our case [6].

Ibrahimi *et al*. managed to construct the nose in a single stage using this flap by islandising it and passing it under a skin tunnel at the medial side of the eyebrow. In this way he avoided division of the flap in a second stage but using this technique the flap could only reach till above the tip of the nose [7]. This was not suitable for our case which required also columellar reconstruction.

Winslow *et al*. used free radial forearm fascial flap for the nasal lining and split calvarial bone and auricular cartilage to make frame for the nose [8]. Nasal frame reconstruction by using costal grafting, the use of 3-dimentional laser surface scanning and the use of titanium mesh or other alloplastic materials are all prescribed techniques [9]-[11].

In our case considering the general condition of the patient, we felt that these sophisticated procedures may not be the best option for him and he can benefit, for the remaining of his life, from a simpler technique with less morbidity. We found the flap to be well reliable and vascular. The flap was able to give coverage to both nostrils.The bulky subcutaneous fat of the flap gave the shape of the dome of the nose.

4. Summary

For advanced stages cancer nose, the use of complicated procedures of nasal reconstruction as cartilage or bone grafts may not be required. Providing an acceptable shape to the patient to face his community for the remaining period of his life using simpler techniques can be a good and satisfactory solution.

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