

Original Research Article

# A Study on Submental Island Pedicle Flap (Sipf) in Oral Cavity Reconstruction – A First Hand Experience

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## **Abstract:**

The aim of this study is to study on submental island pedicle flap (sipf) in oral cavity reconstruction – a first hand experience. Functional results such as deglutition and speech were not affected post-surgery. This study has been carried out on 20 oral carcinoma patients admitted in surgical oncology ward of Index Medical College Hospital & Research Centre, Indore (M.P) and underwent oral reconstruction. Prior to admission, proper screening along with detailed clinical evaluation with detailed history of each patient was done.

Duration of surgery and duration of hospital stay were significantly less. Small to medium sized defects of oral cavity. Colour and texture of donor and recipient site matches perfectly in SIPF. Donor site defect can be closed primarily. Donor site scar is acceptable and not visible as it is in continuation with upper neck dissection scar. In male patients growth of hair at the recipient site was a significant problem. SIPF is well suited for small defects and is good alternative for oral reconstruction.

**Keywords:** SIPF, oral, cavity, reconstruction.

**Study Designed:** Observational Study.

## **1. INTRODUCTION**

Oral cavity is unique in the intricacy of its form and function. Reconstruction is needed after surgical intervention to restore speech, swallowing and cosmesis[1]. It is challenging for the surgeon to restore form and function after cancer management.

Goals of Surgery are

1. Removal of tumour
2. Restoration of form
3. Restoration of function

The reconstructive ladder starting from skin grafts and ending with free flaps may not always be followed due to anatomical and functional requirements of the defects. Skin graft and local flaps are useful for smaller defects. For larger defects, pedicled or free flaps are required[2&3].

### **SUBMENTAL ISLAND PEDICAL FLAP (SIPF)**

The Submental Island Pedicle Flap (SIPF) is an axial fasciocutaneous flap that includes skin, subcutaneous tissue, diaphragm, and fat and is pedicled on the submental artery.

Advantages of the submental island flap is that it has highly consistent colour and flexibility compared with the head and neck skin, simple harvesting, high survival rate, easy suturing at the donor site, and small scars.

**Aim-**To evaluate peri-operative morbidity, functional and cosmetic outcomes following Submental Flap reconstruction in Head & Neck cancer surgeries.

#### **Objective-**

1. To observe functional outcome and quality of life following reconstruction.
2. To evaluate complications and morbidity following Flap reconstruction.

## **2. MATERIAL & METHOD**

This study has been carried out on 20 oral carcinoma patients admitted in surgical oncology ward of Index Medical College Hospital & Research Centre, Indore (M.P) from a October 2020 to March 2022 and underwent oral reconstruction. Prior to admission, proper screening along with detailed clinical evaluation with detailed history of each patient was done.

Detailed examination of tumour, nodal status, metastatic status and donor site evaluation was done with routine & radiological investigation.

#### **Inclusion Criteria-**

1. Proven case of Head and Neck Carcinoma
2. Under age group 20-80 years
3. Willing to undergo pedicle flap reconstruction surgery by self-consent

#### **Exclusion Criteria-**

1. Systemic metastasis
  2. Patients unfit after preanesthetic check-up
- Surgery was organized in the same way as other elective patients admitted in general surgical ward.

Procedure was explained and written informed consent taken.



**Fig No. 1: OUTLINE OF SUBMENTAL FLAP**



**Fig No. 2: HARVESTING SUBMENTAL FLAP**

### 3. RESULTS

Table No. 1

## TYPE OF RESECTION



**Table No. 2: COMPLICATION**

Complication	Type of flap
	SIPF
Infection	2 (10%)
Seroma/hematoma	4 (20%)
Flap failure	1 (5%)
Chest wall weakness	0 (0%)
Neck Movement restriction	0 (0%)

**Table No. 3: Cosmetic Result**



**4. DISCUSSION**

In this study on evaluating Type of resection, it was found that in SIPF, majority had wide excision only (41%) followed by partial glossectomy (25%). There were 17% patients who had wide excision & marginal mandibulectomy, 17% had wide excision & segmental mandibulectomy[4&5].

Flaps complications were not significant in SIPF. Infection seen in 1 patient in SIPF. Seroma/hematoma was present in 4 patients of SIPF. Flap failure seen in 1 patient of SIPF. Chest wall weakness and neck movement restriction were not seen with SIPF[6].

In this study cosmetic results were excellent in majority of patients undergoing SIPF (85%). The study was in corroboration with Pradhan P et al, Joseph A et al, Zenga J et al studies.

## 5. CONCLUSION

Functional results such as deglutition and speech were not affected post-surgery. Duration of surgery and duration of hospital stay were significantly less. Small to medium sized defects of oral cavity. Colour and texture of donor and recipient site matches perfectly in SIPF. Donor site defect can be closed primarily. Donor site scar is acceptable and not visible as it is in continuation with upper neck dissection scar. In male patients growth of hair at the recipient site was a significant problem. SIPF is well suited for small defects and is good alternative for oral reconstruction.

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