

## Original research article

## Interim Obturator: A systematic review

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### Abstract

God has given beautiful face and smile to human being. It is right of every individual to look good. If an individual lost his/her facial part due to certain cause, it has to be restored immediately. Patient will face severe mental trauma and functional disability after maxillofacial structure loss. Post-surgical maxillary defects pre-dispose the patient to hypernasal speech, fluid leakage into the nasal cavity, and impaired masticatory function. Such defects need special prosthesis to establish oro-nasal seal and rehabilitate the patient. After maxillectomy, the prosthodontist treats the defect with obturator. The obturator takes the retention from remaining teeth, undercut areas and scar bands around the defect. In this review article, a technique for creating an interim maxillary hollow bulb obturator that engages the remaining teeth, undercut areas and scar band around the defect is described.

**Keywords:** Obturator, interim obturator, maxillectomy

### Introduction

Prosthodontist play major role in rehabilitation of maxillary defects. Maxillary defects can be congenital, developmental, acquired, traumatic, or surgical involving the oral cavity and related anatomic structure. Creating beautiful smile with function is primary aim of a maxillofacial prosthodontist. After loss of maxillofacial structures like extra oral facial parts and intraoral facial parts, the patient faces severe mental trauma. There will be problem in speech, esthetics and mastication. The society will not accept the patient having maxillofacial defects. The maxillofacial prosthodontist play a major role in reconstruction of lost part with the maxillofacial prosthesis. Maxillofacial structures may loss due to many causes like congenital, accidental and neoplasm. Due to drug or nicotine, the problem of neoplasm in oral tissues are most commonly seen. After ablative surgery of the neoplasm, there will be a defect on palate, reates oroantral communication, patient will not be able to eat or drink with improper phonetics <sup>[1, 2, 3]</sup>. The prosthetic treatment option for palatal defect is obturator. Obturators given for kids are basically a feeding appliance and for adults there will be three types of obturators; surgical, Interim and definitive. Surgical obturator is used to restore the continuity of hard palate immediately after surgery or traumatic loss of a portion or all of the hard palate and /or contiguous alveolar structures like gingival tissue, teeth. The interim obturator is made several weeks or month following surgical resection of a portion of one or both maxillae. It frequently includes replacement of teeth in defect area <sup>[4]</sup>. This prosthesis when used, replaces the surgical obturator that is placed immediately following the resection and may be subsequently replaced with a definitive obturator. A definitive obturator artificially replaces part or all of the maxilla and the associated teeth lost due to surgery or trauma.

In this review paper, maxillary obturators and their indications, contraindications, advantages, disadvantages are described.

### Definitions

An obturator is a prosthesis which is fabricated for the patients with the palatal defects in the form of cleft lip and palate, oroantral fistula, or surgical resection after removable of pathology-like tumor or cancer

### Classification of obturator

- a. **Immediate surgical obturator:** Immediate surgical obturator or maxillary surgical prosthesis or immediate temporary obturator: Surgical obturator is defined as a temporary prosthesis used to restore the continuity of the hard palate immediately after surgery or traumatic loss of a portion or all of the hard palate and/or contiguous alveolar structure <sup>[5]</sup>.
- b. **Transitional obturator:** Temporary or transitional or postsurgical or interim obturator. It is defined as a prosthesis that is made several weeks or months following the surgical resection of a portion of one or both maxillae. It is frequently included replacement of teeth in the defect area. This prosthesis when used replaces the surgical obturator that is placed immediately following the resection and may be subsequently replaced with a definitive obturator <sup>[5]</sup>.
- c. **Definitive obturator:** It is defined as a prosthesis that artificially replaces part or all of the maxilla and the associated teeth lost due to surgery or trauma. When surgical interventions are finished, and healing has progressed for 4-6 months following the cessation of all therapy, interim obturator can be replaced with a definitive obturator <sup>[5]</sup>.

#### **Advantages of a hollow bulb obturator**

- Weight of the obturator is reduced, making it more comfortable and efficient.
- Light weight improves one of the fundamental problems of retention and increases physiological function so that teeth and supporting tissues are not stressed unnecessarily
- Decrease, in pressure on the surrounding tissues, aids in deglutition and encourages the regeneration of tissue.
- Light weight reduces the self-consciousness of wearing a denture.
- Light weight does not cause excessive atrophy and physiological changes in muscle balance.

#### **Trouble shooting of obturator**

Patients wearing obturators over a period of time complain of nasal reflux and hypernasal speech caused by escape of air. This is mainly due to continued fibrosis of the tissues bordering the prosthesis <sup>[6-9]</sup>.

#### **Conclusion**

Prosthetic rehabilitation of the maxillofacial defect patient is a lengthy and involved process. However, if attention is paid to the proper sequencing and details of treatment, it can be one of the most satisfying procedures.

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