ANATOMICAL ASSISTANCE TO ACQUIRE MECHANICAL RETENTION - A QUICK GLANCE

Introduction: Malignancies are common in the oral region and are usually treated through surgical intervention. These types of surgical interventions create communication between the oral cavity, nasal cavity, and maxillary sinus. In such cases, it is very difficult for the patient to perform various normal functions like mastication, swallowing, speaking, and so on. Obturators are basically maxillofacial prostheses to close a congenital or acquired tissue opening, primarily of the hard palate and/or contiguous alveolar/soft tissue structures. It restores the missing structures and acts as a barrier between the communications among the various cavities. These oronasal openings vary within individuals, as does the available anatomy for retention of the prosthesis. Thus, it is essential for one to do a proper and thorough diagnosis before jumping into treatment procedures.

Objective: To review all possible types of intraoral defects and facilitate a quick glance of favourable and unfavourable anatomy for prostheses.

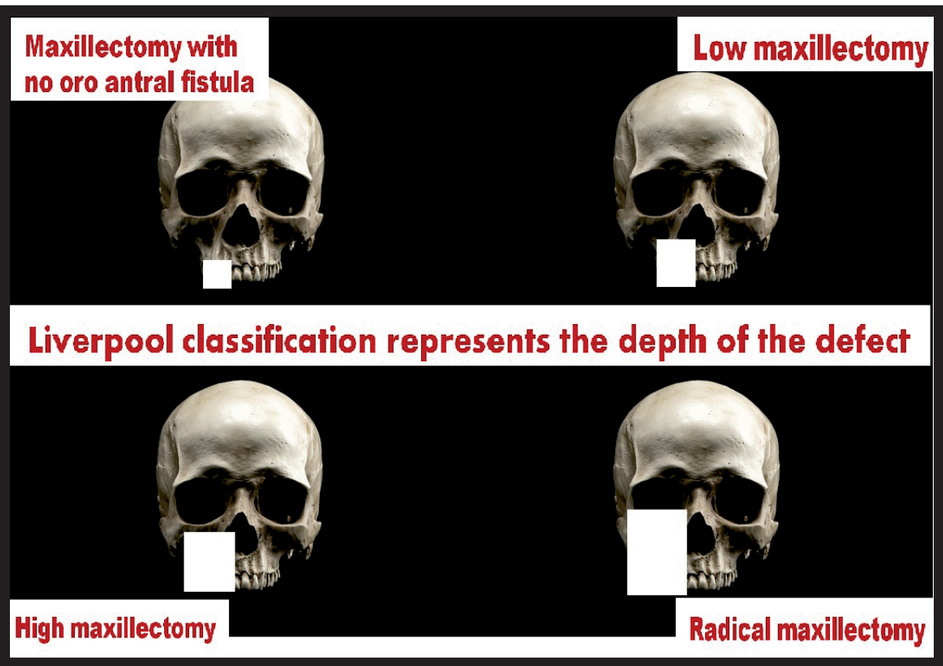
Material and Methods: This poster has scrutinized existing online literature in relation to maxillofacial intraoral defects and obturator through Google scholar.

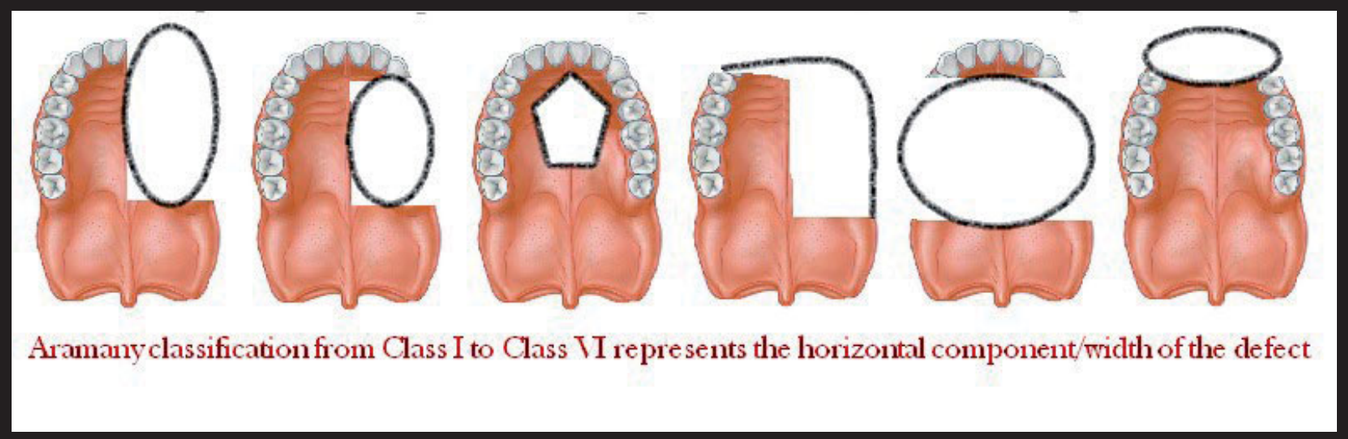
Results : The Full text of following literature was obtained and after a thorough assessment a comprehensive review was presented as a poster.

•Brown KE. Peripheral consideration in improving obturator retention. J Prosthet Dent. 1968;20(2):176–81.
•Desjardins RP. Obturator prosthesis design for Acquired maxillary defects. J Prosthet Dent. 1978;39(4):424–35.
•Aramany MA. Basic principles of obturator design for partially edentulous patients. Part I: Classification. J Prosthet Dent. 1978;40(5):554–7.
•Brown JS, Shaw RJ. Reconstruction of the maxilla and midface: introducing a new classification. Lancet Oncol. 2010;11(10):1001–8.
•Beumer J, Marunick MT, Esposito SJ. Maxillofacial rehabilitation: Prosthodontic and surgical management of cancer-related, acquired, and congenital defects of the head and neck. Hanover Park, IL: Quintessence Pub.; 2011.

KEYWORDS: Obturator, Maxillofacial defects

FIRST AND FOREMOST THE SIZE OF THE DEFECT [HORIZONTAL AND VERTICAL COMPONENTS] NEEDS TO BE ASSESSED



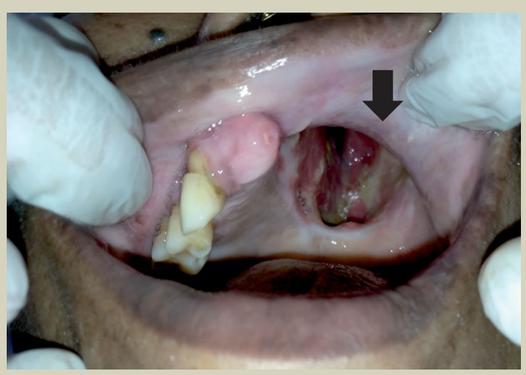


Unfavourable anatomy affecting retention

•Large open defects
•Closed defects
•Residual turbinates restricts the access to defect
•Mucocutaneous flaps to close the defect surgically makes prosthetic rehabilitation impossible.
•Trismus

Examples of unfavourable anatomy

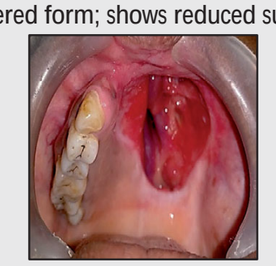
Scar band at graft mucosal junction with high lateral wall reduces vertical displacement



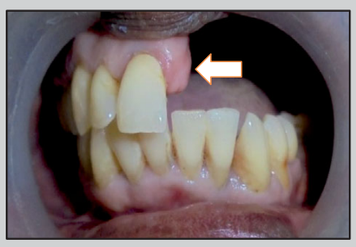
Favourable anatomy for retention

Existing tooth component and interproximal embrasures

Palatal arch form: Ovoid is better than tapered [an example of tapered form; shows reduced surface area]



Preservation of transeptal bone in distal tooth during transalveolar resection



•Bone density in premaxillary segment and maxillary tuberosity assist in implant placement.

•Extension of the prosthesis along the nasal surface of the soft palate and/or anteriorly into the nasal aperture.

•Maintenance of functional contact with dynamic pharyngeal tissues using tissue filler.

A MAXILLECTOMY PATIENT WITH A HOLLOW BULB DEFINITIVE OBTURATOR PROSTHESIS