Case Pictorial

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Reconstruction of the Hemi Maxillectomy Defect Using a Flexible Obturator

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A male patient of 28 years reported to our dental outpatient department with difficulty in chewing, speech and oro-nasal communication. He was operated for mucoepidermoid carcinoma of left maxilla. Hemi-maxillectomy was done 1 year back. Initially, we planned for a temporary obturator without teeth for 3 months, once he got adapted to the obturator. A new impression was made again, and a flexible prosthesis with flexible clasps was constructed. The patient was called for follow-up once in 2 weeks. The prosthesis provides an excellent retention and mastication was also improved followed by no hypernasal speech and no oro-nasal communication (Figures 1-3).

A prosthesis used to close a palatal defect in a dentate or edentulous mouth is referred to as an obturator. The obturator prosthesis is used to restore masticatory function, improve speech, deglutition, and cosmetics for maxillary defect patients. Post-surgical maxillary defects predispose the patient to hypernasal speech, fluid leakage into the nasal cavity, and impaired masticator function.[1] The goals of prosthetic rehabilitation for total and partial maxillectomy patients include separation of oral and nasal cavities to allow adequate deglutition and articulation, possible support of the orbital contents to prevent enophthalmos and diplopia, support of the soft tissue to restore the midfacial contour, and acceptable aesthetic results.[2]

Lack of retention, stability and support are common prosthodontic treatment problems for patients who have had a maxillectomy.[2] The structures in the remaining maxilla amenable to providing obturator retention are limited to the remaining natural teeth and the borders of the defect. So to overcome these problems, rather than making an acrylic obturator. The best choice is to make a flexible obturator prosthesis which provides an excellent retention, support and stability.[3]

Figure 1: Maxillary defect

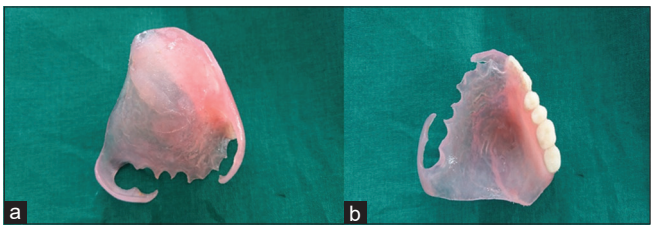

Figure 2: Flexible prosthesis with clasps. (a) Superior view. (b) Inferior view

Figure 3: Patient wearing prosthesis

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Points to Ponder

1. Stability is the resistance to prosthesis displacement by functional forces. Flexible prosthesis provides a good retention and support in areas of the residual maxilla.
2. Depending on the location of the line of palatal resection, there will be varied degrees of undercut along this line into the nasal or paranasal cavity. The objective of prosthesis extension is to provide resistance to vertical and horizontal displacement.[4]

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