

# ORAL REHABILITATION OF MAXILLECTOMY PATIENTS AFFECTED WITH POST-COVID RHINOCEREBRAL MUCORMYCOSES UTILISING CONVENTIONAL AND DIGITAL TECHNIQUES

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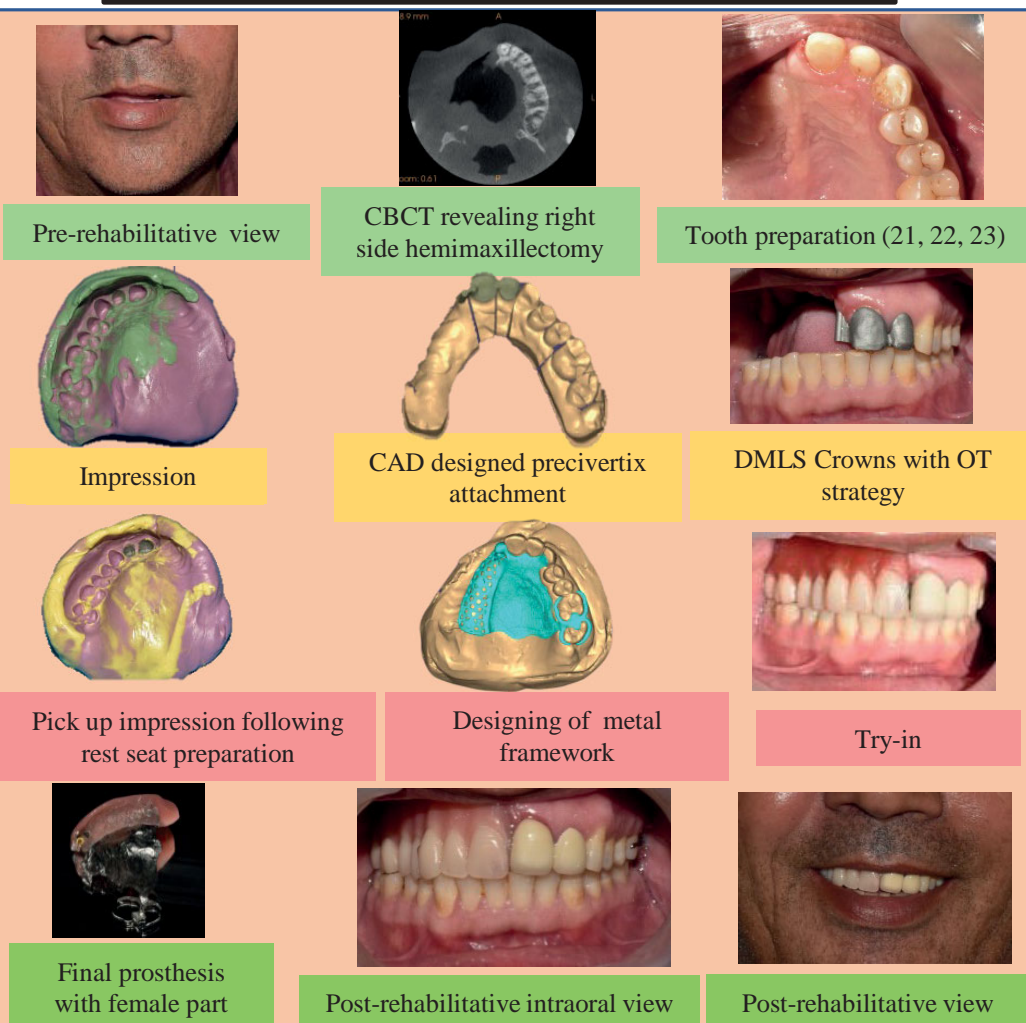
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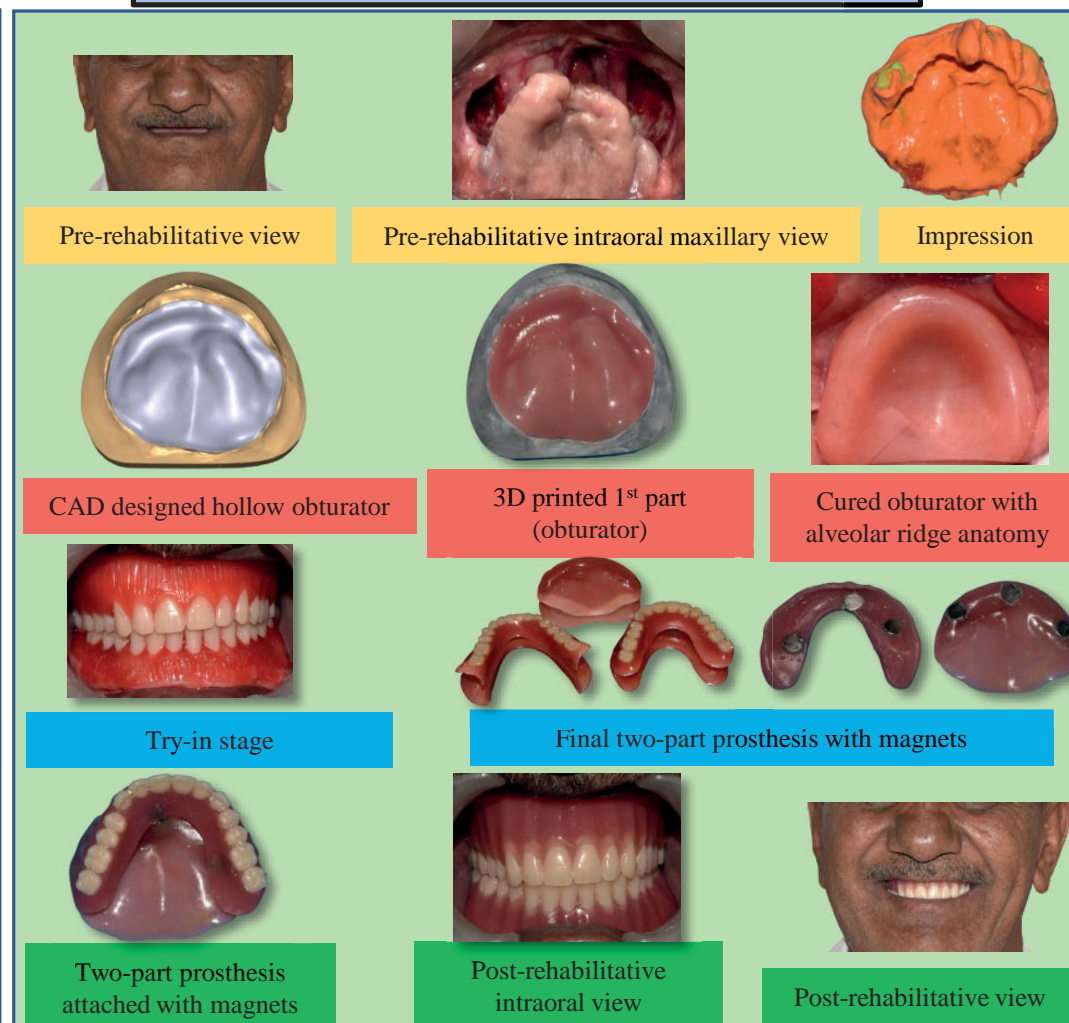
**INTRODUCTION:** Maxillectomy is the surgical removal or resection of the maxilla or upper jaw bone. Maxillectomy is performed during surgical treatment for cancer and infections of the oral cavity, nasal cavity and maxillary sinuses. Patients affected by post-COVID mucormycosis require an aggressive surgical resection resulting in partial or complete maxillectomy. The oronasal communication following resection affects mastication, speech, swallowing and has a profound psychological impact on patient.

**CASE PRESENTATION:** Post-COVID mucormycosis affected patients reported for definitive rehabilitation following partial or total maxillectomy. Partial maxillectomy patients were rehabilitated with DMLS designed metal framework along with semi-precision attachment and hollow obturator fabricated using lost salt technique whereas complete maxillectomy patients were rehabilitated with magnet retained two-part prosthesis (Part I: 3D printed Palatal obturator and Part II: conventional complete denture).

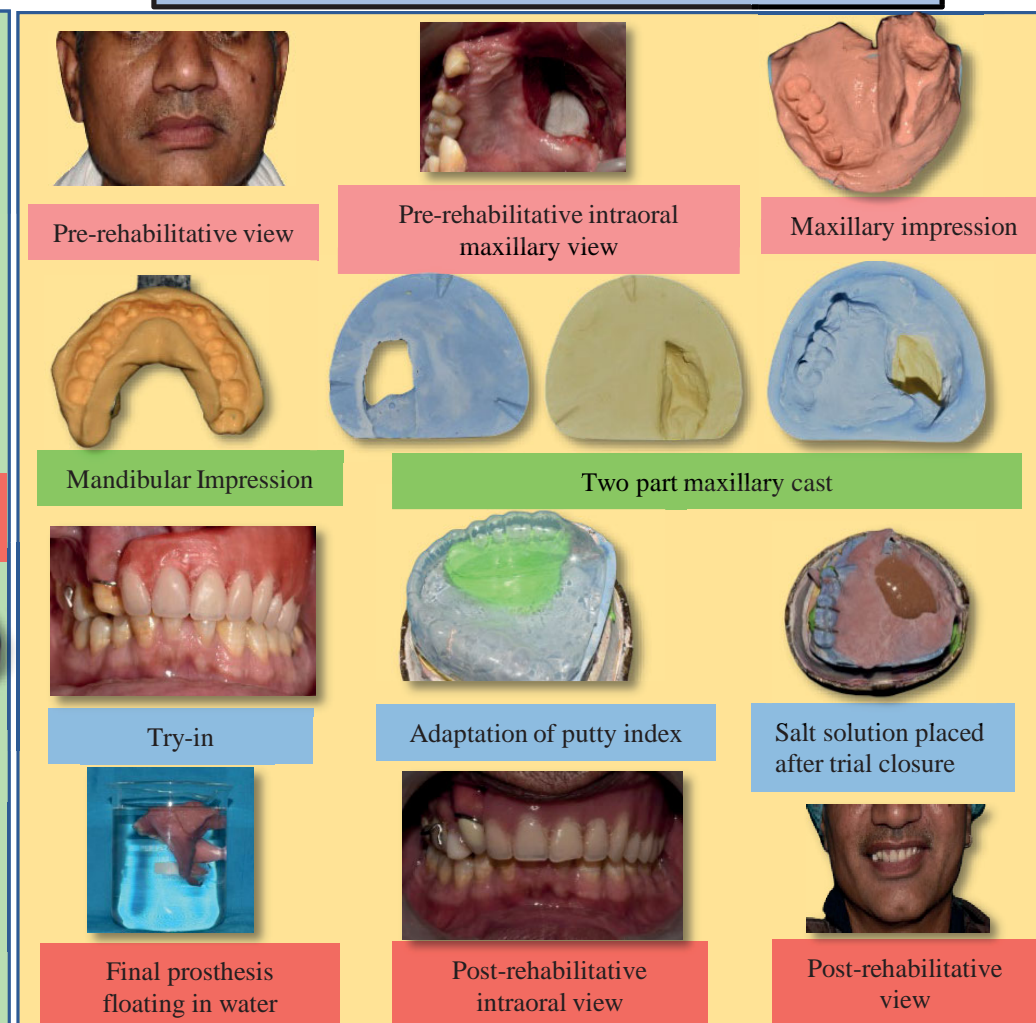
## CASE 1: DMLS METAL FRAMEWORK WITH SEMI PRECISION ATTACHMENTS



## CASE 2: MAGNET RETAINED TWO-PART PROSTHESIS



## CASE 3: HOLLOW OBTURATOR FABRICATED USING LOST SALT TECHNIQUE



**CONCLUSION:** In this presentation both conventional and digital approaches were used for the fabrication of prostheses. Additional manufacturing through 3D printing provided various advantages such as accuracy, detail reproduction, reduced wastage of material, and easier reproduction of complex structures as compared to the conventional approach.

## REFERENCES:

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- Ravi MB, Srinivas S, Silina E, Sengupta S, Tekwani T, Achar RR. Prosthetic Rehabilitation of Rhino Orbital Mucormycosis Associated with COVID-19: A Case Series. Clin Cosmet Investig Dent. 2022;6:14:1-10.