

Construction of Nasal Prosthesis for a Patient with Rhino Cerebral Mucormycosis (A clinical Report).

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ABSTRACT

Aim: To construct a nasal prosthesis for a patient with Rhino cerebral mucormycosis disease and of near total Rhinectomy. **Materials and method:** a permanent soft lining material was adapted over frame work of nose made from visible light cure denture base material, then cured, finished and polished. **Results** the finished nose was retained by engaging undercut and by the use of eye glass. **Conclusion:** A custom sculpted prosthesis combined with soft lining material gives a natural texture of the nose was accomplished within 24 hour. **Key word:** Nasal prosthesis, Facial prosthesis.

Hatim NA, Kazanji MN, Mohi Al-Deen MA. Construction of Nasal Prosthesis for a Patient with Rhino Cerebral Mucormycosis (A clinical Report). *Al-Rafidain Dent J.* 2008; 8(1): 110-113

Received: 19/4/2007

Sent to Referees: 19/4/2006

Accepted for Publication: 11/6/2007

INTRODUCTION

Restoration of facial defects resulting from ablation of facial neoplasm or any other reasons is a challenge for the head and neck surgeon, plastic surgeon and prosthodontist⁽¹⁻⁵⁾.

Factors that affect the prognosis for successful, conventional prosthetic management of facial defect are the presence of remaining supporting area, and defect characteristics such as size, location, contour, and available undercuts⁽⁶⁻⁸⁾.

Obtaining adequate prosthesis retention, needs some mechanical assistance, it may be necessary to engage available retentive area, or the use of eye glasses to aid in retention of nasal prosthesis.

Recording an impression of the nasal space in a conventional technique is problematic because of the significant difference in the path of insertion that is necessary to engage the space when compared with the path of insertion of a conventional obturator without an extension.

This report describes a method for direct construction of nasal prosthesis without recording an impression.

MATERIALS AND METHOD

A poorly controlled diabetes mellitus, of 45 years old brunet face color woman

was referred by otolaryngologist to the prosthetic clinic in the college of dentistry university of Mosul after surgical treatment for near total rhinectomy due to a destructive disease (Rhino cerebral mucormycosis) as showed in Figure (1). The border of the defect extended from the bridge of the nose superiorly to the frontal processes of the maxillary bone inferiorly.

Technique :

1. The first step was done by construction of a frame work from light cured acrylic to achieve, and maintain profile, and potency of the air way, a flame was used to soften wax (polywax/ Bilkim chemical company /Turkey) and was adapted to the defect to occupy the space of nasal cavity and nares, Figure (2).
2. A light cured sheet (MEGATRAY 2A339A, GERMANY) was adapted over the frame work wax and tried on the patient face to engage retentive areas. The whole frame-work with the adapted light cured sheet were cured for 5 minutes by (MEGALIGHT ST 95-1-3614, GERMANY).
3. The light-cured framework then tried on the patient face after finishing and polishing, Figure (3).
4. A retentive holes were drilled through the light cured framework, for the use in the



Figure (1): Frontal and side view of the face of the patient.



Figure(2): Visible light cure Frame work of the nose.



Figure (3): Trail of Frame work of the nose on the patient face.



Figure (4): Preparation of retentive holes.



Figure (5): Direct Manipulation of Molloplast material on the frame work.

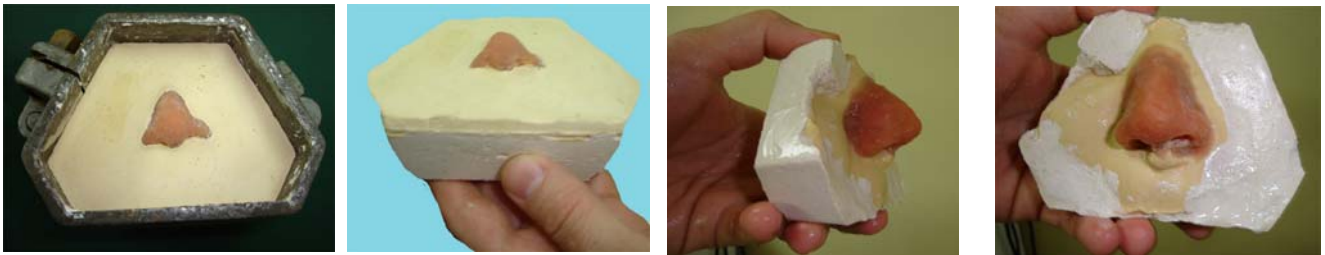


Figure (6): Processing of the Molloplast material.



Figure 7: The eyeglass was tried with the prosthesis on the patient face

retention of (MOLLOPLAST B, soft liner) skin cover, Figure (4).

5. Molloplast B heat cured silicone based soft liner was used to cover the whole framework from external surface and tried on patient face to blend with skin of the defect boundaries, and was sculpted by the aid of photograph supplied by the patient. The color of the Molloplast B match the color of the skin of the patient. The superior margin of the bridge of the nose was adapted as closely as possible to the point of contact with the eye glasses frame chosen to be fit on her face. The Molloplast B that project through the drill holes was then adapted from inside to give more retention. The material was processed by

the conventional way, Figures (5 and 6).

6. The eyeglass was tried with the prosthesis on the patient face, and fixed with cyanoacrylate adhesive and delivered, such in Figure (7).

7. Instructions were given to the patient regarding home care and use.

8. The patient returned 2 weeks /4 months later for a follow up evaluation.

She was satisfied with the results of treatment and felt comfortable in attending the social event with wearing the prosthesis.

DISCUSSION

The literature indicates that 3 to 4 months of postoperative healing may be required to allow for construction and org-

anization of the tissue bed before commencing fabrication of a nasal prosthesis⁽⁹⁾.

In this clinical report, a custom sculpted prosthesis combined with masking agent (MOLLOPLAST B) to give a natural texture of the nose was accomplished within 24 hour.

The nasal bone improved the support of the eyeglasses at the bridge of the nose, and increased skin surface contact, so it enhance adhesion and retention for the prosthesis.

Good esthetic was established at the margin without compromise, resulting from the presence of the nasal bone, and the use of eye glasses maximized retention, and masked the margin of prostheses.

CONCLUSION

This article presents a simple and fast method for the fabrication of nasal prostheses, fit accurately into place, allows nasal breathing and is retentive and esthetically accepted.

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