

# Prosthetic Management of Patient with Orbital Defect : A Case Report

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## Abstract

Poor appearance always been a source of worry and distress to patients who have congenital or acquired maxillofacial defects. The eye is a vital organ not only interns of vision but also being an important component of facial expression . has treatment with implant supported prosthesis is superior mode of treatment but economic factor may be obstacle for poor patients so orbital prosthesis retained by spectacles may be easy and cheap mode for retention .which has acceptable fit , retention and esthetics .

**Key Words:** Orbital defects, orbital prosthesis, obturator.

## Introduction

Eyes are generally the first feature of the face to be noticed, removal of this organ due to tumor, trauma or any other condition not only cause unaesthetic look but also there is loss of function and has pshyological effect on the patients, thus orbital prosthesis should be provided as soon as possible Poor appearance is a source of worry and distress Facial prosthesis an alternative rehabilitation approach. Success depends upon careful pre-surgical planning and communication with the patient, the surgeon and the prosthodontist. Various materials, including impression compound, plaster of Paris, and reversible and irreversible hydrocolloid and Elastomeric impression materials have been used in making facial impressions, and making of orbital prosthesis.

## Case report

A 52 year old male patient with surgical removal of his eyeball reported to the Deptt of Prosthodontics of Dr B.R Ambedkar dental college Patna

On history it was found that the pt was suffering from malignancy of eye .so surgery was done and eye was enucleated. And after 15 days it was decided to fabricate a orbital prosthesis along with upper maxillary obturator prosthesis, because partial maxilectomy was also done .

## Review

The art of making artificial eyes has been known to man for centuries. Until world war II, the glass eye however was

difficult to manufacture and was dangerous when it imploded. One of the pioneer s to use glass eye was Ambroise pare (1510-1590) in 1944 Murphy and Nirronen fabricated physiologic ocular prosthesis in dental corps of US navy

## Procedure

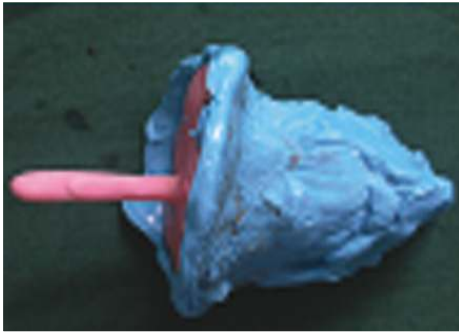
Treatment was planned after careful examination of the area of the defect, patient was explained about the procedure and its limitations.



All the undercuts were blocked with gauge pieces, and on the outer surface application of petroleum jelly was applied to the eyebrows for easy removal of the impression material when it sets. The impression of the orbital surface was made with rubber base impression material After the material had set, it was carefully removed from the socket. Impression was checked to ensure that all the surface are recorded .a two piece dental stone was poured to immerse the lower part of impression. After the stone had set, separating media was applied on the surface. Then a second layer was poured. Marking were made on all four sides of the cast for proper reorientation of the cast.

Next the wax pattern was fabricated by pouring the molten wax into the impression. The wax was properly countered and carved to give it a simulation of lost eye. Try in of





the wax pattern was done. Petroleum jelly may be applied in the tissue surface of the wax pattern to avoid irritation to the tissues.

A prefabricated iris button, whose shade matched with the contra lateral eye, was selected. The position of the iris was determined with help of landmarks making the patient look straight. Later the final try in was done keeping the iris in its defined positioned. The shade of sclera portion was selected using the tooth colored acrylic shade guide.

Flasking was done taking care that the iris is secured to one portion of the flask. Packing was done with the selected heat cured tooth colored acrylic with small red colored silk thread, which may stimulate blood vessels. Slow curing was carried out for acrylisation.

After curing the prosthesis was recovered and polished .next it was inserted in orbital space of patient.



Facial moulage was obtained, and then impression stick which was hollow was prepared for making a final impression of orbital defects. Impression was made in tissue conditioner material with hollow stick, and then facial impression was made and it was poured in dental stone .along with that maxillary impression of defects was also made in light body material for

fabrication of obturator.

In this final facial moulage cast, hollow bulb closed prosthesis was fabricated and the eye wax build up was made with stock eye prosthesis.

Color was made to match the skin of the patient and was try in was done .for retention of this prosthesis it was embedded with help of eye glass which should suit the patient face.



### Discussion

The orbital prosthesis is an artificial replacement for the missing orbital portion of patient. After the surgeon enucleates the eye, prosthodontist is a person who comes into an act of providing the patient with

artificial eye to overcome the agony of loosing eye. with the help of spectacles the prosthesis gets its retention and it also the borders of the prosthesis hides behind the borders of spectacles , giving a feeling of natural eye , with the development of newer materials the socket can be finely recorded on which prosthesis have exact fit and have esthetics .

Although the prosthetic rehabilitation may be enhanced with the use of implants

### Conclusion

Although the patient cannot see with this prosthesis, but it definitely restores the self esteem and allow him to confidently face the world rather than hiding behind dark glasses.

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