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**CONSTRUCTION OF A HOLLOW BULB OBTURATOR
FOR A PATIENT WITH ADENOID CYSTIC CARCINOMA**

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**In PARTIAL FULL FILLMENT OF B.TECH DENTAL
TECHNOLOGY**

PENINSULA TECHNIKON

BELLVILLE

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Introduction

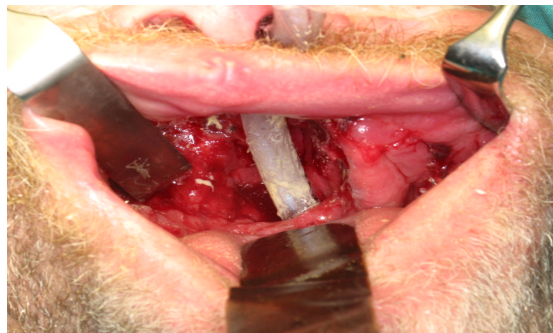
In this particular case I had to fabricate a hollow bulb obturator for a particular patient who had undergone surgery in the maxillary termed Hemi- maxillectomy. This prosthesis is to regain the patient's confidence; speech; mastication and aesthetics.

Conditions and Background

The patient is a 53-year-old male and is fully edentulous. In the year 1996 he was diagnosed with adenoid cystic carcinoma^{1:2} of the minor salivary glands. The surgeons then decided to remove the affected part in the maxillary and then the patient had to undergo a series of radiation treatments to eradicate this malignant tumour. The patient did not return to complete his treatment. In this year (2003) the patient returned with complaints of severe pain when eating and breathing. The surgeons then detected that the malignant tumour has spread throughout the hole of the maxillae.

Clinical Procedure

There were two procedures that could have been done one is radiation treatment and the other one is surgery. Due to the delay of the patient the radiation treatment is not an option any more the only option is surgery and then only can he start with a new series of radiation treatment to eliminate this malignant tumour. The surgery decided on by the surgeons was a full hemi maxillectomy



Technical Treatment Options

There are two possible treatment options on is a fibula; skin graph; implants and then the obturator. This option has been eliminated for the reason that the patient still had to undergo a series of radiation treatments, which might cause failure of the implants and the great expense of the whole procedure.

The other option is the stainless steel screws, which are inserted into the arcus of the skelet, and then nylon threats are attached onto these screws and then onto the obturator. This option was chosen for the following reasons it is inexpensive; minimal risks for the surgeons and easily removable for hygienic purposes.

Laboratory Procedures

Secondary impressions were taken at Tygerberg hospital by the surgeon.



I cast final models at the technikon in type II plaster and blocked out all the possible undercuts to prevent the breakage of the model.



Two sheets of base plate wax were heated up; adapted and looted onto the model and then it was flaked and processed in the conventional manner.



The top part of the flask were removed and then a 50 % plaster and 50% pumice mixture was inserted into the defected area. Then another two sheets of base plate wax was heated up; adapted and looted onto the model. It was then flaked and processed in the conventional manner.



The obturator was then deflasked and the hole was drilled into the palate of the obturator and then placed in the ultrasonic for 5-10 minutes so that the plaster and pumice mixture can dissolve. The obturator is then removed from the ultrasonic all the excess water are then remove and the hole is repaired with self cure acrylic .The obturator are then left to bench cure and the retraction hooks are also inserted in the buccal regions of the obturator at the same time.



The obturator was then pumiced and polished and then sent to Tygerberg Hospital where the surgeons did the placement of the obturator in the patient's mouth.



Conclusion

The whole process was a great success it all depends on the healing time and how the patient accepts the prosthesis in his mouth. The prosthesis is serving his function, which is to improve the mastication; speech; self-confidence and aesthetics with great success.

References

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