Management of Extended Orbital Exenteration using Spectacle retained Orbitofacial Prosthesis

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ABSTRACT

Restoration of facial defects is a challenge for both reconstructive surgeon and prosthodontist. There should be collective efforts from the restorative team involved in rehabilitation of the lost tissue to best of the form and esthetics. Orbitofacial defects warrant early and effective treatment protocol to allow incapacitated patients some level of social acceptance. A removable maxillofacial prosthesis which is closely adapted, well retained and with good color match is easily accepted by the patient. Retention of the orbitofacial prosthesis is achieved using various means, like implants, tissue undercuts, adhesives, magnets. A material chosen should be easy to manipulate and compatible to different retentive aids employed. This paper presents rehabilitation of extended orbital exenteration defect with spectacle retained orbitofacial prosthesis.

Keywords: Exenteration, Prosthesis, Orbitofacial, Rehabilitation.

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INTRODUCTION

Disfiguring wounds resultant to removal of orbital tumors often lead to psychological trauma to the patient. Large facial defects have limited means of anatomical retention but high expectation of esthetics. Providing protection to the vital deeper structures and maintaining the form and esthetics is a greatest challenge in prosthetic rehabilitation of midfacial defects. When restoring lost orbital and surrounding facial structure, orientation of ocular component, shade matching plays a crucial role in the best outcome of the prosthesis. Retention of the facial prosthesis plays a vital role in the success of treatment.
DISCUSSION

Orbital exenteration is a surgical technique in which the orbital content (eye, adnexa and part of the bony orbit) is removed, to manage large orbital tumors. Bartisch G² a German Physician first described this procedure in 1583. This technique is generally reserved to life-threatening malignancies which are unresponsive to more conservative treatment modalities.³ In extended exenteration, excision of adjacent tissues is performed in achieving complete excision of the tumor with healthy tissue margins.⁴ For many facial defects, surgical reconstruction is the most natural way to restore appearance and normal function. However, surgical reconstruction is not always possible. Orbital prosthesis presents an attractive and possible alternative when esthetic and functional requirements are beyond the capacity of local reconstructive efforts.⁵ Prosthetic rehabilitation of orbital exenteration involves eye lids and facial structures are done by selecting suitable reconstructive material and retentive aid. Frequent clinical examination of the exenterated wound would be necessary to evaluate the recurrence of the malignancy. Hence in the present case, easily removable maxillofacial prosthesis which can be firmly attached to spectacle frame was devised. Orbital prosthesis can also be retained in tissue under cuts, by use of medical grade adhesive and osseointegrated orbital implants.⁶ Use of maxillofacial implants may not be a first option in the radical surgeries involving malignant tumors. In the present case, implants were not considered because lateral and supraorbital ridge was surgical removed.

Polymethyl methacrylate resins are one of the oldest materials used in the fabrication of facial prosthesis. They are used because they are durable, color stable, have good edge strength, economical, easily stained extrinsically or intrinsically, and can be firmly attached to mechanical aid like optical frames, but the disadvantage includes rigidity and water sorption. Medical grade
silicone is another material frequently used for extraoral prostheses as it is biologically inert and has life-like appearance but their disadvantages include the need of sophisticated equipments, poor edge strength as well as color deterioration on exposure to sunlight. The spectacle used helped in retaining and camouflage the prosthesis.

Home care of the prosthesis includes washing the tissue surface of the prosthesis with mild soap and water twice a day. The prosthesis needs to be removed at night and a soft sterile dressing pad retained around the defect with adhesive tapes are used to cover the defect.

CONCLUSION

Extended orbital exenteration was managed with spectacle retained orbitofacial prosthesis. Prosthetic rehabilitation is preferred treatment modality for orbital defects. An early, well-retained prosthesis with good esthetics would uplift the psychosocial well-being of the patient.

REFERENCES