

Case Report

Extra-oral prosthetic rehabilitation of facial defects: A low cost alternative

Prahlad Duggal, M. L. Sharma, A. S. Chadda*

Departments of ENT and *Department of Dental Surgery, Dr. Rajinder Prasad Govt. Medical College, Tanda, Kangra, Himachal Pradesh, India

For correspondence

Dr. Prahlad Duggal, 330, Nagina Avenue, Majitha Road, Amritsar - 143 001, India. E-mail: duggalprahlad@yahoo.co.in

Rehabilitation in patients with facial defects requires a multidisciplinary approach involving a head and neck surgeon, a maxillofacial prosthodontist and a reconstructive surgeon. Extra-oral prosthetic rehabilitation complements reconstructive surgery in patients with facial defects especially- in our set-up where economic factors are a major consideration for the patient. We discuss a case of facial injury as a result of a bear attack for which an extra-oral facial prosthesis was applied to the patient at a fraction of the cost of reconstructive surgery.

Key words: Extra-oral, facial defects, prosthetic rehabilitation

Rehabilitation of facial defects is generally required in patients who have undergone tumor ablative surgery for head and neck cancers as well as in a few trauma patients. A multidisciplinary approach is required in the care of these patients involving a team of head and neck surgeons, maxillofacial prosthodontists and reconstructive surgeons. In most of the cases of head and neck surgery, planning and preparation for rehabilitation is done prior to the surgery using a coordinated approach of the entire team involved.^[1] But in trauma cases, because planning and preparation become difficult due to the unexpected nature of the trauma, various defects resulting from trauma can be very challenging to correct.

In our set-up, some major factors affecting the choice of procedure are the high cost of various reconstructive procedures and the willingness of the patient to undergo surgery. We present a case of a bear bite resulting in a facial injury for which facial rehabilitation was done using an extra-oral prosthesis at a very low cost to the patient.

CASE REPORT

A 29 year old female presented in our ENT outpatients' department with a history of injury caused by a bear attack while she was collecting wood in a jungle two years ago. As a result of the attack, she lost her right eye and a major part of the right side of the face and nose were badly affected. At that time, she was operated and grafting was done to cover the orbital area but the nasal defect was left as such for future reconstruction [Figure 1]. But as the patient was from

DISCUSSION

Facial defects emotionally drain the patient as seen in patients with head and neck cancers.^[2] Lesions involving facial structures can require prosthetic rehabilitation. These prostheses can be made using materials like polymethyl methacrylate or urethane-backed, medical grade silicon. These implants are retained with adhesives, tissue undercuts or as



Figure 1: Patient with facial defect



Figure 4: Patient with prosthesis and glasses on



Figure 2: Acrylic prosthesis



Figure 3: Patient with prosthesis covering the defect

osse-integrated implants.^[3,4] Reconstructive and microvascular surgery is the treatment of choice for many cancer and trauma patients although there will always be a need for extra-oral maxillofacial prostheses, in which manmade materials substitute for missing biological structures.^[5] Prosthetic rehabilitation for facial defects has several advantages over surgical reconstruction as it is quite inexpensive, allows for periodic examination and cleaning and is also an alternative to surgery in unsuitable candidates. The fabrication process is relatively short and the clinician has a lot of control over the color, shape and size of prostheses. Disadvantages are possible irritation, need for repeated remakes and problems with retention as well as compliance. It is reported that 12% of the patients never wear these prostheses.^[6] Even considering all these factors, these facial prostheses provide the patient with a low cost alternative (as in the present case the cost was rupees one hundred only), with little morbidity associated with the procedure in comparison to reconstructive and microvascular surgery (provided the patient is willing to wear and adapt to the use of prostheses).

Extra-oral facial prosthetic rehabilitation can be of great help to the clinician attending patients with facial defects. Thus, in the opinion of the authors, the option of prostheses should be used in patients with facial defects viz-à-viz the surgical reconstruction especially where economics plays an important role.

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