Original Article

Management of 30 cases of Malignent Skin Lesions at the lower eyelid and cheek with cervicofacial flaps

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ABSTRACT

Object: To assess suitability of this flap with respect to defects in this area.
Design: Observation study.
Place and duration: Department of Plastic Surgery and Burns Bolan Medical College & Complex Hospital Quetta, from January 2003 to December 2009.
Patient and Methods: 30 cases were operated with reconstruction using cervicofacial flaps. Patients were selected through Out Patient Department. Follow up 3 & 6 months.
Results: Flaps survival was 100 % with partial flaps necrosis at tip of the flaps in 4 cases, with large defects recurrence was observed in five cases.
Conclusion: Procedure was found to be suitable with regards to large defect i.e (4 cm to 6 cm).
Keywords: Skin Tumors & cheek defects, cervicofacial flaps.

INTRODUCTION

Skin cancer has become common in our part of the world as it used to be common in other parts of the world such as United States, Europe and Australia .The incidence is more common in fair skinned people than in coloured people.

The incidence is directly related to ultra violet exposure. It is that highest in sunny climates people working out door and people not covering their parts of body with clothings. The ultra violet Radiation causes electron excitation in absorbing atoms and molecules inducing damaging chemical reaction which results in damage to DNA resulting in cell death and new plastic transformation.

These lesions have good prognosus if treated at an earlier stage, other wise they are fatal and deforming.

We working in the Department of Plastic Surgery at Quetta receive a lot of patients from far flang areas including Balochistan, parts of Sindh, and Punjab .The areas of Afghanistan & Iran adjoining the border also approach Quetta for treatment. The people living in these areas are mostly illiterate, poor, and basic health facilities are scarce. Further more, great distances and lack of infrastructure facilities have made the conditions worse. The above factors make it very difficult for the masses to seek advice and treatment, regarding their health problems.

Most of our patients approach at a stage where disease is advanced. And in a few patients disease has reached to a stage where surgical intervention is difficult and other measures are adopted.

Our department receives a great number of skin malignancies involving all parts of the body specially expose parts i.e Face, specially cheek, canthal areas, nose and lips, are the areas receiving the bulk of sun light, resulting in increased incidence of malignancies.

Following Factors are related with the incidence of these malignancies:

Ultra violet Radiation:

The incidence of skin cancer is directly related to ultra violet radiation it is highest in sunny climates, in people with light complexion. Here the radiation induced chemical change in DNA is responsible for cell death and new plastic transformation. The effects of ultra violet radiation are reduced by the presence of hair, thick stratum corneum and melanin. The thinning and the holes in the ozone layer has increased the hazards associated with ultra violet exposure resulting in great increase in number of skin malignancies.

Ionizing Radiation:

Ionizing radiation was also associated with skin cancer which include X-Rays, Gamma Rays and particulate radiation i.e electrons, protons, neutrons and heavy nuclei.

Chemical Carcinogens:

Chemical carcinogens such as Arsenic psoralens nitrogen mustard are also related. Carcinogenesis occurs through bio-chemical interaction i.e covalent bonding of carcinogen with cellular macro molecules.

Genetic Determinants:

They play a major role in the pathogensis.

Xeroderma pigmentosum:

An inherited condition . Xeroderma pigmentosum, is characterized by ultra violet induced DNA damage resulting in multiple epithliomas with subsequent malignant change.

Albinism:

With hypopigmentation of skin, hair and eyes. There is increased risk of Squamous cell and basal cell carcinoma.

Among the skin cancer the three main types, most prevalent are

(i) Basal Cell Carcinoma
(ii) Squamous Cell Carcinoma
(iii) Maligment Melanoma.

PATIENTS AND METHODS

Most of the patients were received in the out door department of Plastic Surgery and Burns. Patients were admitted to the Department of Plastic Surgery and Burns at Bolan Medical Complex Hospital Quetta from April 2003 till to December 2009. Patients were classified according to the age, sex, occupation, presentation and site of the disease and type of tumor .Diagnosis was made on the basis of clinical presentation and histopathology.

RESULTS

Study consist of thirty cases operated from Jan 2003 to Dec 2009 in almost all the cases the defect was located at the cheek either involving lower eyelid or the inner canthal area.

All the defects were reconstructed using cervicofacial flap. This procedure involves extensive dissection of the cheek preauricular & retroaurcular area and the neck and extending medially downwards to the chin, for flap advancement .This flap is vascularized by the anterior perforators of the internal mamary artery .It may cover the entire aesthetic unit of the cheek.

We observed, all the flaps survived very nicely except partial necrosis at the tip of the flaps. Which work later on healed well. The entire specimen were sent for histopathology. Cases with positive margins were referred for radiotherapy. Recurrence was observed in five cases which were excised and managed accordingly.

DISCUSSION

Aesthetic units of the cheek are the topographic zones of the cheek, sub orbital and preaudicular and bucomandbular area. Although small defects in this area was reconstructed using small local flaps , as the laxity and vascularity of this region enables closure of defects.

But most of the patients were presented at an advanced stage where growth has attained a large size where local flaps could not achieve the desired result in these cases because in the advance case the tissue requirement was greater. This technique proved to be adequate with superior aestheatic results. In most of the cases some degree of ectropion was present which seemed to be unevitable due to tumor invasion of the lower eye lid which was partially or completely excised. The remenient conjectiva was undermined & stitched on to the advancement cheek flap.

In a few cases the lower lid ectropion was partially corrected with free graft.

CONCLUSION

We have been using free grafts from local cheek flaps and cervicofacial flaps with regards to defects on the cheek , lower eyelid and their inner canthal area. We found cervicofacial flap repair as the most adequate aesthetically with least donor area morbidity, providing coverage in large defects.

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