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Case Report

SURGICAL EXCISION AND SKIN GRAFTING, A VIABLE OPTION FOR ORAL LEUKOPLAKIA: CASE REPORT

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ABSTRACT

Prompt diagnosis and treatment execution is the prime requisite for treating premalignant lesions of the oral cavity. Clinicians must understand that available treatment options are limited in their capacity to prevent oral cancer. Surgical resection is still currently the best technique for management of oral leukoplakia followed by reconstruction of the defect with suitable flap or graft. Here, we present a case of a young male patient with leukoplakia of right buccal mucosa treated with surgical excision and reconstructed with a full thickness skin graft.

Keywords: Oral Leukoplakia, Excision, Resection, Skin Graft.

INTRODUCTION

Leukoplakia is a precancerous lesion, i.e. "a morphologically altered tissue in which cancer is more likely to occur than in its apparently normal counterpart" (Axell 1996). The rate of malignant transformation into squamous cell carcinoma varies from almost 0% to about 20% in 1 to 30 years (Lind 1987; Schepman 1998; Silverman 1984).

Since most leukoplakias are asymptomatic, the need for treatment is primarily based on the precancerous nature of the lesion. Prevention of malignant transformation is particularly important in view of the poor prognosis associated with oral squamous cell carcinoma, with only 30% to 40% of patients still alive 5 years after the diagnosis (Scully 2000). Many treatments have been proposed for oral leukoplakias (including medical and surgical therapies).

The laser excision, electrocoagulation, cryosurgery have their share of disadvantages including loss of histopathological diagnosis, thermal damage, ischemic necrosis of the treated tissue. Various surgical techniques have been reviewed by clinicians such as primary closure, buccal mucosal graft, split thickness skin graft, allogenic graft, regional rotational flap and distant flap. The selection of reconstructive techniques depends on the size of the intraoral mucosal defect post excision and the surgeon's preference¹.

Here, we present a case of oral leukoplakia of cheek mucosa treated with conventional scalpel excision and reconstruction with a full thickness skin graft.

CASE REPORT

A 29 years old male patient reported with complaints of burning sensation on left cheek for last 6 months and he noted white patches since last 5-6 months, which were increasing slowly. There was mild pain associated with the patches while consuming food. Patient was a known tobacco chewer for the past 10 years. The oral hygiene of the patient was moderate. He had no sharp tooth or overhanging filling in the vicinity of the lesion. Clinical examination revealed that left buccal mucosa of the cheek with white smooth homogenous lesion of 3 x 4 cm, which involved the left buccal mucosa and it was extending from distal side of mandibular left canine to left retromolar area (Fig. I). Clinically it was diagnosed a case of leukoplakia which was confirmed post operatively by histopathological examination.

It was planned to remove the lesion and reconstruction of lost oral mucosa with a split thickness skin graft. The surgery was planned under general anesthesia. Nasoendotracheal intubation was performed and general anesthesia was administered. After standard draping and painting, the left cheek mucosa was infiltrated with 2% lignocaine with adrenaline 1: 80000. The lesion with 2mm healthy mucosa was incised and marked with the help of No.15 blade (Fig. II). On the buccal mucosa buccinator fibers were cut and blunt dissection was done with dissecting scissors under the lesion. The whole lesion was removed using periosteal elevator bluntly dissecting it from the tissue bed (Fig. III and IV).



Figure I: Pre-Operative intraoral view of leukoplakia patch



Figure II: Marking of the incision



Figure III: Underlying tissue bed after total excision of lesion



Figure IV: Excised mucosa

Now, after standard aseptic precautions, a full thickness skin graft of about 4cm x 4cm was harvested from the left thigh region with the help of humby's knife (Fig.V). Small stab holes were made over the graft to facilitate healing and adaptation of the graft to the underlying tissue bed. The skin graft was then sutured to the margins of the wound using 3-0 vicryl suture with round body needle and with underlying wound using 3-0 silk suture. The donor site was given Vaseline dressing. The patient was reviewed at regular one week intervals and sutures were removed 2 week after the surgery. After one week the healing was uneventful without any necrosis or sloughing of the graft tissue. No any post operative complication was observed. A one year follow up of the patient showed good adaptation of the graft and no residual pathology was detected (Fig.VI).



Figure V: Harvested full thickness skin graft



Figure VI: 1 year post op view

DISCUSSION

“Oral leukoplakia is a predominantly white lesion of the oral mucosa that cannot be characterised as any other definable lesion” (Axell 1996). It can be manifested as a single lesion or it affects

many locations thus being multifocal, which is considered to be a bad sign. Many clinicians suggest surgery as the first choice in the management of oral leukoplakia².

Clinical manifestations of oral leukoplakia can take different forms defined according to the clinical pattern (homogenous or nonhomogenous), distribution or spread of the lesion (focal or disseminated), and location within the oral cavity.

The correlation between clinical and histopathological information is important for the final diagnosis. Molecular characteristics of the lesion may predict its progression to carcinoma allowing early detection and treatment³.

Various types of interventions include:

- Surgical removal of the lesion, including surgical excision, laser surgery, cryotherapy.
- Topical medical treatment, including anti-inflammatory agents, antimycotic agents, carotenoids and retinoids, cytotoxic agents, etc..
- Systemic medical treatment.
- Removal of predisposing habits (e.g. tobacco, alcohol, etc.).
- Other treatment (e.g. photodynamic therapy).
- Combined treatment⁴.

Small defects following intraoral excisions are many a times reconstructed by skin grafts. It has the advantage of ease of harvest with minimal additional operating time and post-operative hospital stay, an acceptable functional cosmetic result, and the ability to survive post-operative radiation⁵.

Yoshimura Y (1995) suggested that the paucity of the blood supply in the grafted bed, and the uneven pressure and immobilization of the grafted skin, influence the success of the procedure, and that proper case selection is necessary⁶.

CONCLUSION

Leukoplakia, fairly common precancerous lesion should be perfectly characterized in order to define the “high risk” variant with high potential for malignant transformation. In the

presence of moderate or severe epithelial dysplasia, surgical treatment is recommended. Early diagnosis and intervention can prevent the potential complications and can provide a better quality of life to the patient.

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