ABSTRACT
Oral epithelial dysplasia is a histopathological diagnosis, i.e. associated with increased risk of oral cancer. The risk factors of oral cancer mainly predilicted in alcoholics and smokers. According to the recent documented literature available, these two risk factors are not completely responsible for the development of the disease but they acts just an aggravant to the diseased state; although smoking and alcoholism are mostly studied, the nonhabitual subjects are very rare which develop such lesions. The presence of oral epithelial dysplasia in non-habitual patients is usually rare and interesting to acknowledge that it exists without these two major predisposing factors in nonusers. We hereby present a case of epithelial dysplasia that occurred in a patient with no adverse habit which was treated successfully by buccal fat pad grafting following excision of the lesion that healed uneventfully and did not undergo lethal malignant transformation into oral cancer.

Keywords: Alcohol, Buccal fat pad, Epithelial dysplasia, Oral, Oral cancer.

CASE REPORT
A 47 years old male patient reported to the department of oral and maxillofacial surgery with the chief complain decayed tooth in right upper first molar and wanted extraction for the same. Patient revealed that he was a non-smoker and nonalcoholic. Patient was well-oriented and only gives history of use of tooth powder for cleansing teeth.

The inspectory findings revealed grossly decayed tooth in relation to 16. The soft tissue finding revealed a white discoloration over the left side of buccal mucosa (Fig. 1) without any other abnormalities. The lesion was nonscrapable when scraping of the lesion was tried. When investigated via questionnaire, the patient revealed that he was apparently fine 6 months before when he experienced burning sensation in left buccal mucosa and that whitish lesion developed as a small...
white spot that grew to the present dimension with the course of time without any offending irritational factors for which he has never taken any medication.

According to the symptoms and signs to come to a provisional diagnosis of lichen planus. Various other varieties of mucocutaneous white lesions were thought of which created a clinical dilemma over the diagnosis. To rule out all the other entities, we instituted incisional biopsy for getting the real picture of the condition.

The biopsy report of the patient revealed hyperkeratinized epithelium (Fig. 2) overlying inflamed connective tissue stroma. The epithelium was stratified squamous hyperkeratinized type and shows mild to moderate dysplastic features like basilar hyperplasia, nuclear hyperchromatism, increased nucleocytoplasmic ratio, pleomorphism, prominent intracellular bridges loose bundles of collagen fibers and inflammatory cells were also seen suggestive of hyperkeratosis with mild epithelial dysplasia.

On getting the confirmatory diagnosis as mild epithelial dysplasia, we instituted wide surgical excision of the lesion and reconstruction with buccal fat pad and collagen membrane (Figs 3A and B). Postoperative antibiotics, analgesic and antioxidants, to allay the condition to some extent by antioxidant therapy and induce uneventful healing of the surgical site, were given to the patient.

The post-treatment follow-up of the patient was done up to 6 months (Figs 4A and B) and it was found that there were no further signs of any recurrence of the previous lesion and burning sensation to the site was also resolved completely.

**DISCUSSION**

Epithelial dysplasia refers to the changes in cellular components of buccal mucosa at microscopic level similar to the dysplastic changes seen in the oral cancer; although it is a type of precancerous lesion but it is not mandatory that the lesion definitely develops into squamous cell carcinoma. It is currently impossible to predict accurately which lesion will progress. Jaber et al did a study to compare the clinical features and long-term outcome of oral epithelial dysplasia between users and nonusers of tobacco and alcohol on 456 patients diagnosed as having oral epithelial dysplasia were reviewed. Oral epithelial dysplasia in nonusers of tobacco and alcohol was
uncommon, accounting for only 8.1%. The tongue and buccal mucosa were the most commonly affected sites. An erythroleukoplakic-type lesion with mild dysplasia was the common presenting feature. These findings support the notion that oral epithelial dysplasia may also develop in persons who have never used tobacco or alcohol. Lesions more commonly occurred in women, especially in the tongue and buccal mucosa, and were mostly of the erythroplakic type.1

Huff et al4 reported a case of epithelial dysplasia. The following case report illustrates how a case of mild epithelial dysplasia in a high-risk site was managed via cryotherapy. Conventional radical excision in the retromylohyoid region carries an elevated risk of injury to the lingual nerve that may result in permanent paresthesia and loss of taste. Scar tissue formation may lower the quality of life by complicating the swallowing and agglutination functions of the tongue.4 Therefore, avoiding surgical insult was desirable and in the patient’s best interest. Cryotherapy can be used for the treatment but it is very technique sensitive and gives equal results as surgical scalpel excision in curative aspect.

Chan and Wolf5 stated that oral mucosal lesions are commonly encountered in clinical practice. A study conducted in the United States reported that understanding of the fundamentals of diagnosing mucocutaneous lesions requires a sound knowledge of its origin and clinical course, and of biopsy methods using contemporary diagnostic tools and technique. Excisional biopsy can be used as a diagnostic tool as well as the treatment of the lesion.

Toshihiro et al11 published a study to evaluate the applicability of pedicled buccal fat pad grafting for the reconstruction of the defects surgically created during oral surgery. The graft was used to cover palate, maxilla, upper gingival buccal mucosa, lower gingiva, oral floor and tempromandibular joint region.11 This study proved that buccal pad fat grafting is feasible for the reconstruction of surgically induced defects.

Rastogi et al12 published a study to evaluate the efficacy of collagen membrane as a biodegradable wound dressing material for surgical defects of the oral mucosa. They concluded that the nature of collagen membrane was observed and was found to be a very suitable alternative to other graft materials mentioned for the repair of defects in the mucous membrane of the oral cavity. Therefore, when used judiciously in a controlled clinical situation, collagen membrane is biologically acceptable to the oral mucosa and is, from the clinical point of view, an excellent wound graft material for raw surface wound.12

Oral dysplasia shows significant rate of transformation into cancer but the rate is decreased significantly by excision.9 Saito et al9 advocated that surgical excision of the lesion is better option as malignant transformation is reduced as compared to those who did not receive surgical treatment.9 Reddi and Shafer8 reported that wide excision of the lesion is better treatment protocol rather than any conservative approach.8

Dost et al10 also advocated that the present histological grading system is not useful for predicting patient outcomes or for determining management strategies. Definitive treatment of all oral epithelial dysplasias is recommended until a more reliable system is developed to assess the progression or transformation of the lesion.10

In the present study, we treated this case of epithelial dysplasia by excision of the lesion and the defect formed was reconstructed by buccal fat pad which was covered with a collagen sheath and secured with absorbable sutures. Follow-up showed better results that revealed complete cure of the condition and restoration of the oral epithelium again to its normal state.
CONCLUSION

The epithelial dysplasia is although a very rare entity in nonalcoholics and nonsmoker patients and is usually has very mild symptoms in early phase; so it is generally ignored by the patient and can even be ignored by the general dental surgeon because patient not getting any severe discomfort and requires the treatment regarding the chief complain only. Accidental finding of such lesions can be seen only by an experienced surgeon who examines the oral tissues minutely with excellence. Such conditions should be well-diagnosed before they transform into carcinoma like debilitating and deleterious disease and should not be ignored rather it should be treated appropriately with proper protocol.

We performed wide excision of the lesion with reconstruction by buccal fat pad and securing it by collagen membrane and absorbable sutures. This technique showed satisfactory results with proper healing of the lesion and no recurrence.

REFERENCES