

## Case Report

### Bilateral erythroplakia in patient suffering from elder neglect

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#### ABSTRACT:

Oral mucosal lesions characterize different colorations out of which many may be physiological variations while others may be of serious threat. Red lesions are a group of mucosal lesions which have a mixed proportion of both (harmless and harmful). Erythroplakia (speckled) is a red lesion that is commonly seen interspersed between multiple white lesions and may easily be interpreted as a primary white lesion, rather than a primary red lesion. Since many red and white lesions are not precancerous in nature, it becomes significant for a clinician to differentiate the two and initiate treatment accordingly. We present a case of an elderly male patient, with a history of chewing tobacco, who had bilateral erythroplakia on either side of the buccal mucosa. The clinical features of the lesion presented classical signs and symptoms of erythroplakia while the final diagnosis was confirmed only after histopathological examination. Management of the condition has also been discussed.

**Keywords:** buccal mucosa, leukoplakia, lichen planus, erythema, oral candidiasis

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#### INTRODUCTION

Different colored mucosal lesions in the oral cavity are predictive mostly of grave concern because of their association with oral cancer. Red lesions in the oral mucosa are actually a large heterogeneous group of disorders, the color of which is mostly due to underlying tissues. Erythroplakia is considered as a solitary red lesion which has the potential of being a premalignant lesion. By definition (WHO, 1978) any lesion of the oral mucosa that presents as bright red velvety plaques which cannot be characterized clinically or pathologically to any other recognizable condition.<sup>1</sup> One may say that if it not anything else, then it is erythroplakia. The origin of cancers in and around the orofacial region is either from the skin (muco-cutaneous keratoacanthoma)<sup>2</sup> or intra oral mucosa. Most intra oral cancers (95%) are that of squamous cell in origin,<sup>3</sup> that are known to cause excessive deformities upon surgical removal.<sup>4</sup> while

an erythroplakia can present in various forms both clinically as well as microscopically,<sup>5</sup> it is important for general dentist to be aware of its nature and potential since it impacts general handling of the tissues and other treatment outcomes.<sup>6</sup> It has also been stated that oral erythroplakia OE, has largely been neglected during recent decades, which has led to its complexity and confusion.<sup>7</sup> From patients' point of view, suffering from oral cancer has been found to develop psychologically (phobias) problems irrespective of assurances from oral physicians.<sup>8</sup> This article presents a rare case of a bilateral erythroplakia in an elderly patient, which presented clinically as identical lesions on either side. Such incidences are rare, although the incidence of erythroplakia is commonly found.

### CASE REPORT

An elderly male patient aged 60 years old, reported to the department of oral diagnosis with chief complaint of burning sensation on the left side of the oral cavity since last 7 days. The burning was more intense at several times of the day, especially when he used to consume smokeless tobacco (local variant of powder tobacco). The patient's medical history did not reveal any significant compromised findings except he had met with a car accident 20 years ago and had multiple facial fractures. Social history revealed that he has used different types of tobacco (since last 20 years). Extra oral examination was within normal limits. Intra oral examination revealed red lesions on the buccal mucosa, immediately from the corner of the mouth. The lesions were bright red, velvety with well demarcated margins between the normal mucosa and white colored mucosa on either side (Fig 1 and 2).

**Figure 1: Right sided intra oral view (bright red lesion interspersed with white leukoplakia).**



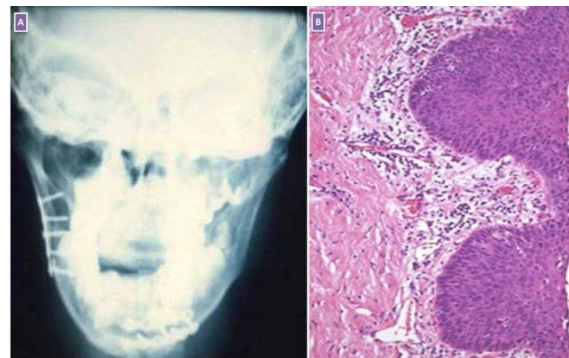
**Figure 2: Left sided intra oral oral red lesion similar in topography as that on the right side with identical red central lesion interspersing peripherally. Note the posterior tooth occlusal plane not in relation to the lesion thus aiding in differential diagnosis.**



The borders were well demarcated but irregular that was interspersed with white foci (granular type). The

entire lesion was also dispersed within white leukoplakic lesions (speckled) that were small and irregular. The lesions were similar on left and right side in terms of clinical appearance and location. No other associated lesions were found in the remaining oral mucosa. The lesion was soft to palpation without any underlying hardness or induration. Slight ulcerations were present in certain areas on the left side while no ulcerations were visible with the naked eye on the right side. The patient was asked to undergo a radiographic investigation (cranial) and a biopsy was taken for histopathological diagnosis. A cranial view radiograph revealed presence of plates and pins on the ramus and the base of the mandible (Fig 2 A). histopathological features included thin epithelium with prominent subepithelial vascularity and inflammatory cells., bulbous /tear drop rete pegs, hyperchromatic nuclei with diminished cytoplasm, pronounced mitotic activity resulting in a vast number of cells and intact basement membrane (Fig 2 B).

**Figure 3: (A) Cranial radiograph showing previous fracture of the mandible, one at the ramus and one near the midline (B) Histopathological picture indicating erythroplakia showing thin atrophic epithelium with subepithelial vascular inflammation.**



A toluidine blue test (1%) was also done with no evidence of the color being retained. The patient was educated about the lesion and its potential for transformation. The patient was advised about the importance of stopping of consumption of alcohol and tobacco. The patient was recommended for a multivitamin therapy, including the use of antioxidants, oral hygiene maintenance and strict follow up. In addition, use of beta carotenes, lycopenes, vitamin C and E were recommended. The patient did not report for his follow up after first follow up after one month.

### DISCUSSION

A clinical case of bilateral erythroplakia interspersed within white lesions has been presented in this report.

Oral mucosa can present with a wide spectrum of pink colours that may vary from a normal pale pink to dark pink (reddish). In certain areas the color difference is because of underlying vascular contents. The color of the normal mucosa depends on its vascularity, thickness and degree of keratinization, presence or absence of pigmentation (melanin) and the presence or absence of inflammation.<sup>9</sup> Investigations of abnormal red lesions should contain a detailed history of duration, the association of pain and/or habit, systemic conditions.<sup>10</sup> Erythroplakia is commonly seen on the buccal mucosa, floor of mouth and tongue. Its redness is attributed to the absence of the surface keratin layer that is compounded with enlarged capillaries in the connective tissue.<sup>11</sup> Its prevalence (0.02 to 0.83) is low and region based. There are still conflicting views on its etiology although some factors are commonly associated (idiopathic, alcohol, smoking, tobacco chewing, Candida infection) with the lesion.<sup>12</sup> Clinically it may appear with variations in size, surface texture, borders and symptoms. Pain is usually observed when the lesion has lost a considerable layer of overlying keratin or is superinfected (especially candidal infection).<sup>13</sup> Clinically the lesion may appear like homogenous, erythroplakia interspersed with patches of leukoplakia (present case) and granular or speckled erythroplakia. The leukoplakic variant has been commonly reported in the tongue area.

Erythroplakia may show neoplastic features and may either be observed as squamous cell carcinoma or carcinoma in situ. Other transformations may take the form of inflammatory lesions like Candida albicans infection, histoplasmosis etc.<sup>14</sup> differential diagnosis includes purpuric macules, lichen planus, nicotine stomatitis, carcinoma in situ, candidiasis, traumatic erythematous macules and erosions.<sup>15-20</sup>

Other rare lesions that should be considered for differential diagnosis are Fordyce granules,<sup>21</sup> pyogenic granuloma,<sup>22</sup> varicose veins,<sup>23</sup> herpetiform ulceration,<sup>24</sup> and hairy tongue.<sup>25</sup> the clinical picture of the erythroplakia lesions are easily distinguishable except in certain initial lesions of leukoplakia where erosion has taken place.<sup>26</sup> cancerous transformations can be destructive to oral cavity since underlying tissues can be easily penetrated by dysplastic cells that includes the bone. If and when the mandible is involved, the surgical approach is necessary that includes wide resection of the mandible.<sup>27</sup> rehabilitation of patients in such cases depends on the presence or absence of remaining teeth.<sup>28</sup> treatment options may include a removable partial denture or implant supported prosthesis.<sup>29,30</sup>

## CONCLUSION

Practitioners in dentistry must be aware of the differences between an innocuous and an aggressive red lesions, alongwith the clinical features of such lesions. It is important to handle such tissue with care while doing dental procedures.

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