Dental Research Journal

Letter to Editor

New definition proposed for oral leukoplakia

Dear Editor,

Leukoplakia is defined as "white plaques of questionable risk having excluded (other) known diseases or disorders that carry no increased risk for cancer."[1] It is considered as a premalignant lesion and has a malignant transformation rate of around 0.13%–34%.[2] Hence, it is critical to recognize this entity. Over the decades, various classifications have been proposed in the literature for leukoplakia. However, still there is confusion and ambiguity in uniform reporting of this lesion.[3] Hence, there is a need to propose a new definition for leukoplakia for diagnosing and uniform reporting of this entity.

The World Health Organization (WHO) in 1978 defined leukoplakia as - "a white patch or plaque that cannot be characterized, clinically, or pathologically as any other disease."[4] According to this definition, diagnosis of leukoplakia was to be arrived by exclusion and histopathology is not to be considered. In 1984, in an international seminar, the definition was changed to "leukoplakia is a whitish patch or plaque that cannot be characterized clinically or pathologically as any other disease and it is not associated with any physical or chemical causative agent except the use of tobacco."[5] In this definition, leukoplakia was exclusively associated with tobacco. In an international symposium in Sweden, in 1994, leukoplakia was defined as - "a predominantly white lesion of the oral mucosa that cannot be characterized as any other definable disease, some oral leukoplakias will transform into cancer."[6] Shortly after that, the definition was modified as - "a predominantly white lesion of the oral mucosa that cannot be characterized as any other definable lesion."[7] In 2005, WHO defined leukoplakia as - "a white plaque of questionable risk having excluded (other) known diseases or disorders that carry no increased risk for cancer."[8]

It should be noted that nicotine stomatitis and tobacco pouch keratosis are reversible and usually have good prognosis and thus are different from leukoplakia.[9] Proliferative verrucous leukoplakia is multifocal and occupies wide regions and hence does not come under the category of leukoplakia.[1] In case of hairy leukoplakia, discoid lupus erythematosus, and lichen planus, histopathology can help in excluding leukoplakia.[1] Hyperplastic candidiasis responds clinically to antifungals and hence is different from leukoplakia.[10] Palatal lesions due to reverse smoking can be differentiated from leukoplakia by observing the characteristic smoking habit.[1] White lesions due to physical or chemical causes are not considered as leukoplakia.

The current definition of leukoplakia does not mention whether leukoplakia represents scrapable or nonscrapable lesion; reversible or irreversible.[1] It is well known that tobacco, alcohol, and betel quid may contribute to the development of leukoplakia.[2] However, the current definition misses to state about these common etiologic factors. White plaques are also present in proliferative verrucous leukoplakia, which is actually a different entity from leukoplakia. Hence, it would not be suitable to mention "white plaques" in the current definition. Instead, inclusion of term "white lesion" would be more appropriate to oral leukoplakia.

Hence, there is a need to propose a new definition that defines all the aspects of leukoplakia without any ambiguity. We propose a new simple definition for leukoplakia as:- "a predominantly white, irreversible, nonscrapable lesion of the oral mucosa that cannot be characterized clinically or histopathologically as any other lesion/disease and has increased risk of cancer occurrence than its normal counterpart and is usually associated with consumption of tobacco, betel quid, and alcohol, but otherwise can be of idiopathic in nature".

The proposed new definition defines leukoplakia in every aspect and dimensions possible, without any confusion. We hope that this definition gets due recognition after considering its merit.

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Conflicts of interest

The authors of this manuscript declare that they have no conflicts of interest, real or perceived, financial or nonfinancial in this article.

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