

Potentially Malignant Disorders and Pediatric Dentistry : Review

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Introduction

Precancerous lesions of oral mucosa, known as potentially malignant disorders in recent years, are consists of a group of diseases, which should be diagnosed in the early stage. Oral leukoplakia, oral submucous fibrosis, and oral erythroplakia are the most common oral mucosal diseases that have a very high malignant transformation rate. Oral lichen planus is one of the potentially malignant disorders that may be seen in six different subtypes including Papular, reticular, plaque-like, atrophic, erosive, and bullous type, clinically. Atrophic and erosive subtypes have the greater increased malignant transformation risk compared to another subtypes. Although there are various etiological studies, the etiology of almost all these diseases is not fully understood. Geographically, etiologic factors may vary. The most frequently reported possible factors are tobacco use, alcohol drinking, chewing of betel quid containing areca nut, and solar rays. Early diagnosis is very important and can be lifesaving, because in late stages, they may be progressed to severe dysplasia and even carcinoma in situ and/or squamous cell carcinoma. For most diseases, treatment results are not satisfactory in spite of miscellaneous therapies. While at the forefront of surgical intervention, topical and systemic treatment alternatives such as corticosteroids, calcineurin inhibitors, and retinoids are widely used [1]. Several studies have indicated a relationship between potentially malignant lesions associated with age, but the registration of some cases in children raises concerns. Many previous studies have reported that in LP among pediatric patients, the oral mucosa seems to be less commonly involved with a prevalence of approximately 0.03%17 compared with 1–2% of the general population. Furthermore, childhood LP has been documented as a complication of HBV vaccination, where the recombinant proteins of the HBV vaccine – specifically the viral S epitope – may trigger a cell-mediated autoimmune response targeted at the keratinocytes [2].

Oral submucous fibrosis (OSMF) is a chronic, progressive, potentially malignant disorder (PMD), which is characterized by fibroelastic changes in the lamina propria. This condition gradually

leads to the stiffening of the oral mucosa followed by reduced mouth opening [3]. Even though many etiologic factors play a vital role in the progression of OSMF, areca nut remains to be the primary causative agent. Surveys that have been conducted in different academic institutions of India revealed that around 13%–50% of school-going children were chewing areca nuts in various forms [4,5]. Updated literature gives evidence of very few pediatric cases of OSMF among which the youngest patient was a 4-year-old girl, reported by Hayes in the year 1985 [6]. Our case report of OSMF in a 5-year-old girl draws attention to the increasing use of commercially available nicotine and areca nut products among children. The flavor and appealing packages are attracting the younger generation, and a lack of awareness of its adverse effects is resulting in a higher occurrence of PMDs among them [7]. The reason for the existence of such cases may be due to the spread of bad habits among children (tobacco use, alcohol drinking, chewing of betel quid containing areca nut, and solar rays), which prompts us to emphasize health education programs for children and early examination of the oral mucosa to register any possible disorder.

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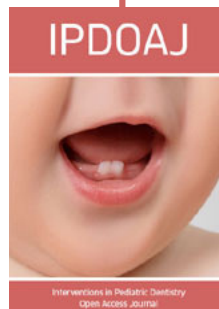
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