Oral Candidiasis : A Common Clinical Condition Encountered in Dental Practice

Dr. Ajai Kumar Garg
Reader, Dept. of General Medicine

Dr. Poonam Agrawal
Professor, Dept. of Orthodontics

Krishna Dental College, Ghaziabad

Abstract

Oral candidiasis is an infection with varying clinical manifestations. To prevent delay in diagnosis and treatment, it is essential that the dental clinicians have an understanding of the etiology, pathogenesis, and treatment of this disease. Objective of this article is the identification of the various clinical features of oral candidiasis. The underlying causes of oral candidiasis include impaired immunity like extremes of age, HIV disease, diabetes mellitus, malignancies, chronic debilitating diseases, poor denture hygiene, xerostomia, dentures, orthodontic treatment, neutropenia, antibiotic therapy, steroid therapy, and cytotoxic drugs etc.

Introduction

Candida is a small thin wall ovoid yeast measuring 4-6 µm in diameter and it reproduces by budding .The genus Candida encompasses more than 150 species only a few cause diseases in human being. Common human pathogens are C. albicans, C. glabrata , C. krusei , C. tropicalis . These are ubiquitous in nature and are found on inanimate objects, in foods, and on animals and are normal commensal of humans. They inhabit the gastrointestinal tract including the mouth and oropharynx, the female genital tract and skin .

Pathogenesis

Candida being a commensal in oropharyngeal cavity does not cause any disease under normal healthy conditions. Oral candidiasis is a common opportunistic fungal infection in various states of impaired immunity like extremes of age, HIV disease, diabetes mellitus, malignancies, steroid therapy, cushing syndrome, chronic debilitating diseases . Oral candidiasis has also been found to be associated with dentures, orthodontic treatment, xerostomia, neutropenia, antibiotic therapy, and cytotoxic drugs etc.

Clinical manifestations

It may manifest as pseudo membranous candidiasis or oral thrush , erythmatous or chronic atrophic candidiasis, candidial leukoplakia or chronic hyperplastic candidiasis, and angular cheilitis.

Pseudo membranous candidiasis or **oral thrush** is most common form of oral candidiasis is characterized by white adherent, painless discrete or confluent patches in the mouth, tounge, or esophagus. These creamy white curd like patches on tongue, buccal mucosa, soft/ hard palates and any other mucosa of oropharynx, on scrapping reveal a raw bleeding surface. This form of candidiasis may also occur at points of contact with denture. This type of candidiasis is found in sick infants, debilitated elderly patients receiving high dose of glucocorticoids or broad spectrum antibiotics, patients receiving cytotoxic drugs, and in patients with acquired immunodeficiency syndrome. A young otherwise healthy appearing person with oral thrush should be investigated for an underlying HIV infection. More commonly thrush is a nonspecific manifestation of severe debilitating illness.

Erythmematous candidiasis, also known as **chronic atrophic candidiasis**, presents as flat red sometimes sore area on the dorsal surface of the tongue, soft/ hard palates.

Bald tongue; atrophy of the mucosa of the tongue, may be an expression of erythmematous candidiasis. It may be associated with xerostomia, pernicious anemia, iron defiency anemia, pellagra, or syphilis; may be accompanied by painful burning sensation.

Median rhomboid glossitis a congenital abnormality of tongue with ovoid, denuded area in median posterior portion of tongue may be associated with candidiasis.

Candidal leukoplakia or **chronic hyperplastic candidiasis** presents as asymptomatic non removable white thickening of epithelium due to candidiasis on the dorsolateral surfaces of the tongue or anterior buccal mucosa.

Angular cheilitis presents as sore fissures at corner of mouth which responds to topical anti fungal therapy.

Diagnosis

Oral thrush can usually be diagnosed simply by looking at the lesions, but sometimes a small sample is examined under a microscope to confirm the diagnosis. Diagnosis is established by visualization of pseudohyphae or hyphae on wet mount with saline and 10% KOH and fungal cultures.

Management

Oral candidiasis can be treated with clotrimazole troches (10 mg) five times daily. Nystatin can be used as an alternative. It also responds favorably to oral antifungal therapy with fluconazole (100 mg) once daily for 10-14 days and correction of predisposing causes where possible. Oral fluconazole was found more effective than clotrimazole troches in the treatment of HIV-infected patients with oral candidiasis. Candidal leukoplakia responds to prolonged anti fungal therapy.

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