ORAL CANDIDIASIS – A SHORT REVIEW

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ABSTRACT

Oral candidiasis, a common opportunistic fungal infection of oral cavity, which may be a cause of discomfort in patient. It is caused by Candida species on mucous membranes of mouth. The majority of infection is due to Candida albicans. There are few factors that make oral tissue susceptible to Candida infection, they are saliva, xerostomia, night use of denture, tobacco, carbohydrate rich diets, and patients that receive radiotherapy and chemotherapy. It is also known as Oral thrush, oropharyngeal candidiasis. Maintance of oral hygiene and early diagnosis of this condition is very necessary.

Keywords: Oral Candidiasis, candida, fungal infection

INTRODUCTION

Oral candidiasis is also called oral thrush, oropharyngeal candidiasis (1). Oral Candidiasis is a mycotic infection affecting the oral mucosa. Candida albicans is most commonly implicated organism in this condition. The genus candida is a collection of 150 asporogenous. They are mostly classified under class Deuteromycetes because of asexual reproduction (23). There are five types of Candida species: C.albicans, C.tropicalis, C.krusei, C.parapsilosis, C. guilliermondi (2). In human oral candidiasis is most common form of candidiasis (3). It carried in mouth of almost 50% of world’s population as normal component of oral microflora. Candida albicans are recovered from 60% of dentate patients mouth over the age of 60(4). It is a very common oral sign in AIDS patients (5). Oral candidiasis occurs in about two-third of people with AIDS and esopharyngeal candidiasis. (6). The main factors which increases susceptibility of oral candidiasis are: Immunodeficient – eg AIDS patient (5), Nutritional deficiency (6), Malignancies, dental prosthesis (6), high carbohydrate diet (7), malabsorption (3), infancy and old age (7), poor oral hygiene , heavy smoking (8), antibiotics-broad spectrum antibiotics (6), endocrine disorders-diabetes (9), dysplasia (4), atopy (11), xerostomia (12).

CLASSIFICATION

Oral candidiasis is classified into primary and secondary infections (Greenberg et al.) (4)

Primary Infection (GroupI)
- Pseudomembranous
- Erythematous
- Hyperplastic
- Candida-associated lesions

Secondary Infection (GroupII)
- Oral manifestation of systemic mucocutaneous candidiasis.

Acute pseudomembranous affects patients under immunodeficient and antibiotics drugs (11). Clinically it appears to be a white slough with bleeding mucousa beneath the denture (13). Chronic pseudomembranous affects patients under immunocompromised states like AIDS, leukemia (10). Erythematous appears to be like a red, raw looking lesion. Erythematous candidiasis accounts 60% of
oral candidiasis cases (14). Erythematous appears on the dorsum of the tongue (11) resulting to loss lingual papillae (15). Hyperplastic appears as white plaque with lesions which may be rough or nodular in texture (16). Hyperplastic accounts about 5% of oral candidiasis cases in adults (14). Candida-associated lesion are Angular cheilitis—which includes inflammation at the angles of the mouth (7); Denture related stomatitis—which includes mild inflammation and erythema of the mucosa beneath a denture (18); Median rhomboid glossitis—which includes lesion on just anterior to circumvallate papilla (18); Linear gingival erythema—which includes inflammation of the gums (10).

**DIAGNOSIS**

Oral candidiasis diagnosis is based on clinical signs:

1. Exfoliative cytology - oral smears are collected from lesions in oral cavity (19)
2. Culture-oral swabs are collected and sent for culture to detect candida species (6)
3. Biopsy- if candida leukoplakia is suspected (19)

**TREATMENT**

Oral candidiasis can be treated with topical antifungal drugs, such as nystatin, miconazole, Gentian violet or amphotericin B. Patients who are immunocompromised, either with HIV/AIDS or as a result of chemotherapy, may require systemic treatment with oral or intravenous administered anti-fungals.

If candidiasis is secondary to corticosteroid or antibiotic use, this may be stopped, although often this is not a feasible option depending on the initial reason the drug was prescribed. Underlying immunosuppression may be medically manageable once it is identified, and this helps prevent recurrence of candidal infections.

In recurrent oral candidiasis, the use of azole antifungals risks selection and enrichment of drug-resistant strains of candida organisms. (9) Drug resistance is increasingly more common and presents a serious problem in persons who are immunocompromised. (18)

Prophylactic use of antifungals is sometimes employed in persons with HIV disease, during radiotherapy, during immunosuppressive or prolonged antibiotic therapy as the development of candidal infection in these groups may be more serious. (4)

The Candida load in the mouth can be reduced by improving oral hygiene measures, such as regular toothbrushing and use of anti-microbial mouthwashes. (20). Since smoking is associated with many of forms of oral candidiasis, cessation may be beneficial. In individuals who have developed candidiasis secondary to the use of inhaled steroids, rinsing out the mouth with water after taking the steroid, and using a spacer device to reduce the contact with the oral mucosa (particularly the dorsal tongue) may be beneficial. (21)

**CONCLUSION**

The prognosis of oral candidiasis is good when the predisposing factors associated with this infection are eliminated. When the systemic predisposing factors arise even patient with primary candidiasis are also at risk. In most of the cases oral candidiasis is a cause of secondary superficial infection which can easily be resolved with antifungal therapy. The advent of HIV infection has resulted in a reinvigoration of oral candida infection. The incidence of all forms of candidiasis have increased in few years due to widespread of broad spectrum antibiotics and immunosuppression therapies.

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