

## **TITLE: Technical and preventive measure of Candida associated denture stomatitis**

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### **Abstract**

Mouth care is an essential aspect of palliative care in all settings and should be considered part of daily routine patient care. Assessment and intervention should be instigated early to optimize patient comfort and prevent more serious problems and treatment complications. Palliative care for denture stomatitis patients with chronic atrophic candidiasis is less addressed. Edentulous elderly denture population with poor systemic and immune health have more chance of oral candidiasis occurrence ,needs better palliative care at home to ensure better comfort to the patients and their kins.

**Keywords:** Candida, Denture stomatitis, Microbial flora, Oral care

### **Back ground**

#### **Therapeutic and preventive measure of candida associated denture stomatitis**

In candida associated denture stomatitis, the most important therapeutic measure is of effective oral and denture hygiene.<sup>[1]</sup> If oral hygiene is not meticulous, the infection often returns in a few weeks after discontinuation of antimycotic treatment<sup>[2]</sup>. There is evidence that the entire alimentary tract of patients with candida-associated denture stomatitis tends to be colonized by

candida, and that the denture plaque may serve as reservoir for the microorganism.<sup>[3]</sup> It has been found that candida is able to survive in denture plaque and in microporosites of the fitting denture surface. It is therefore, important to control plaque development on the oral mucosa and denture and possibly, to continue antimycotic treatment for at least four weeks to obtain a long term cure. Plaque control is begun with proper motivation and instruction of the patient supported by an individual recall system for professional oral hygiene maintenance.<sup>[4]</sup> The concentration of yeast in the plaque is about hundred times higher in patients with denture stomatitis than in denture wearers with healthy mucosa.<sup>[5]</sup>

### **Measures to control plaque**

There are three ways to control plaque on fitting surface they are mechanical measures, chemical measures, adequate denture wearing habits. The patient should be instructed to remove the denture after every meal, if feasible and scrub with soap or nonabrasive dentifrices before reinserting the denture. Commercial hypochlorites denture cleansers removed plaque efficiently and acid cleanser were effective against calculus on dentures; both substance may have a harmful effect on certain prosthetic materials and may cause burning or etching of oral mucosa if not correctly handled. Enzymatic denture cleanse based on protease was shown to reduce the formation of plaque, but the smell of the product often discourages patients from using it. Both alkaline peroxides and hypochlorites may cause significant whitening of denture resins if the dentures are immersed regularly at temperature of sixty degree or higher <sup>[6]</sup>. Under scanning electron microscope examination, ultrasonic treatment of denture was largely superior to immersion cleansers for removing microorganism from denture surface.<sup>[7]</sup>

### **Denture wearing habits**

Continuous denture wearing may produce denture stomatitis by enhancing local mucosal trauma.<sup>[8]</sup> Mechanical irritation may increase the epithelial cell turnover, resulting in epithelial surface that is less keratinized and more permeable to microbial antigen or toxins. The denture may also cause trauma because it is old, illfitted or rough and porous. Rough areas on the fitting surface should be smoothed or relined with a soft tissue conditioner.<sup>[9]</sup> However, a simpler and efficient way to reduce colonization of the denture surface by candida is to remove the denture at night and keep them dry.<sup>[10]</sup> In this way, the dentures are practically decontaminated, and the

dimensional changes of the dentures as a consequence of drying have no clinical significance. On the other hand, when dentures are soaked overnight in water, the yeast counts increases. From practical point of view, it is preferable to soak the denture for several minutes after overnight drying, brush the denture and then replace in the mouth.

### **Local therapy to prevent relapse**

Treatment with antifungal agents should be used mainly in those patients, once the clinical diagnosis has been confirmed by a mycological examination or With associated burning sensations from the oral mucosa. Antimycotic treatment is mainly indicated in immunocompromised patients with more widespread infection of the oral mucosa or with lesion that respond poorly to oral hygiene measures. Antimycotic treatment includes the use of antifungal antibiotics and antimicrobial agents for denture disinfection. Topical treatment with nystatin pastilles or suspension form, amphotericin B which in lozenges or suspension form, miconazole gel or ketoconazole lozenges for two to three weeks usually eliminates the infection, with concomitant clearing of oral symptoms, angular cheilitis and glossitis. It is important to place denture in a 0.2 percent chlorhexidine solution, or one percent hypochlorite solution, during oral antifungal therapy to decontaminate them.

### **Declaration of patient consent**

Patient's consent not required as there are no patients in this study.

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### **Conflicts of interest**

There are no conflicts of interest.

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