

Oral Candidiasis: Case Report and Comprehensive Review.

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ABSTRACT

This case involves a 55-year-old male with a recent onset of a burning mouth sensation. He had a history of tongue carcinoma treated with surgery and radiation, tooth extractions, and tobacco use. Clinical examination revealed various oral issues, leading to a provisional diagnosis of atrophic candidiasis and submucous fibrosis. Further investigations, including biopsy, were recommended. The final diagnosis confirmed atrophic candidiasis on both hard and soft palates. Treatment involved antifungal medication, oral hygiene guidance, and new denture recommendations. Follow-ups demonstrated reduced symptoms, underscoring the need for a thorough diagnostic and management approach in complex oral conditions.

Keywords: Atrophic Candidiasis, Submucous Fibrosis, Oral Cancer, Denture, Tobacco Use.

I. CLINICAL PRESENTATION:

A 55-year-old male patient reported to the Department of Oral Medicine Radiology with a complaint of Burning sensation in the mouth persisting for two weeks and also expressed the need for replacing his missing teeth. The patient was asymptomatic two weeks ago. However, he eventually began experiencing burning sensation that aggravated while eating food and relieved by rinsing the mouth. Patient gave a history of carcinoma (malignancy) associated along the right lateral border of tongue which was diagnosed and treated five years ago. He underwent the necessary surgical procedure (hemi glossectomy) for the removal of the cancerous tissue and subsequently completed the necessary (31) radiation cycles as a part of his treatment. No relevant family history was noted. The patient underwent an extraction procedure under local anesthesia four years ago.

Thus, multiple teeth were extracted the reasons that were stated were tooth decay and gum disease. Additionally, he received a (prosthesis)

denture, two years ago. However, the patient stopped wearing the denture approximately one to two years ago. Discomfort and alteration in sensation were the factors that led to the discontinuation of the denture. Patient gave a history of consumption of tobacco since 25 -30 years, Combination with areca nut and betel leaf. (smokeless form).

He assembled all the ingredients in a quid form and kept in his lower posterior vestibular area for a span of 3-4 minutes. On an average, he chewed 2-3 quids a day. Patient had completely stopped tobacco consumption since 5-6 years.

In terms of personal history, the patient maintains a well-rounded diet, incorporating a mix of nutritional elements. Appetite is consistently regular, and the patient reports regular bowel and bladder habits. Adequate sleep is achieved on a regular basis, contributing to overall well-being. General examination reveals normal findings in terms of build, gait, and skin condition. Vital signs are within normal ranges, with an afebrile temperature. These aspects collectively contribute to a comprehensive understanding of the patient's overall health and lifestyle, providing a foundation for further medical assessment and care.

Examination of the area related to the patient's chief complaint revealed several notable findings. Erythematous sites were observed on the palatal mucosa, encompassing both the hard and soft palate. A distinctive feature included well-defined hyperemic borders situated 0.5 cm below the mid palatine raphe, extending approximately 30x40mm in its greatest dimension and involving the soft palate. Within the denture-bearing areas of the palatal mucosa, there was diffuse erythema and edema, with the affected mucosa displaying a granular texture that sharply contrasts with the surrounding mucosa. The Visual Analogue Score Observed during the first visit was 7.

Furthermore, anodontia, indicating the absence of teeth in both the maxillary and

mandibular arches was observed. A decreased vertical dimension at occlusion was observed, and there was evidence of atrophy of the papilla in the

anterior 2/3 of the tongue. Blanching was evident on the palate, and the saliva exhibits a thin, ropy consistency. Ref (Fig 1)



Fig 1 a) Blanching of the soft Palate



b)Atrophic Candidiasis of hard palate

Provisional Diagnosis:

Atrophic Candidiasis (Hard Palate):

The provisional diagnosis suggests the possibility of atrophic candidiasis affecting the hard palate. Atrophic candidiasis is a fungal infection caused by *Candida* species, leading to thinning or atrophy of the mucosal tissue.

Submucous Fibrosis (Soft Palate):

Submucous fibrosis affecting the soft palate is a chronic condition characterized by the buildup of fibrous tissue in the submucosal layer, often associated with the use of tobacco or areca nut.

Differential Diagnosis:

Atrophic Glossitis (Right side - Anterior 2/3 of Tongue):

This refers to a potential condition involving the right side of the anterior two-thirds of the tongue characterized by the thinning or atrophy of the tongue's surface.

Atrophic/Erythematous Form - Oral Mucositis:

The differential diagnosis includes considering the possibility of atrophic or erythematous forms of oral mucositis. Oral mucositis involves inflammation and ulceration of the oral mucosa, often associated with certain medical treatments like chemotherapy or radiation.

Atrophic Glossitis - Sore Tongue:

This points to a potential diagnosis of atrophic glossitis, a condition characterized by the inflammation and atrophy of the tongue's papillae, leading to a sore tongue.

Further investigations, such as biopsy and staining, were suggested for a conclusive diagnosis.

FINAL DIAGNOSIS

Based on the patient's history and clinical features –a final Atrophic Candidiasis (hard and soft palate) was considered.

TREATMENT PLAN

The patient was advised to avoid intake of spicy food. He was advised Candid mouth paint (Clotrimazole Candid Mouth Paint) daily three times application for 5 days. Follow-up appointment was scheduled after five days to assess the patient's progress and address any concerns or adjustments needed. Multivitamins: The patient was prescribed a course of multivitamins. The recommended intake involves a one-week course of multivitamins. Multivitamins can contribute to overall oral and systemic health, aiding in the recovery process and supporting the body's immune system. The patient was instructed to maintain meticulous oral hygiene practices, including regular brushing. This is essential for preventing further complications and supporting overall oral health. Given the chief complaint and clinical findings, the patient is advised to consider obtaining new dentures. This may address any issues related to the denture-bearing areas, contributing to improved comfort and functionality. The patient reported for follow-up one week later.

Consider decrease in the burning sensation was noted Visual Analogue Score noted was 4. Ref (Fig 2) The patient was advised to continue the medication further for one week The patient was thus recommended to undergo the necessary treatment for rehabilitation further.

Follow Up



1 Visit Visual Analogue Score noted -7.



2 Visit Visual Analogue Score noted -7.

Patient Perspective:

“I had good interaction with the physician during all the diagnostic and treatment procedures and I am satisfied with the treatment outcome as my symptoms improved.

II. DISCUSSION

Oral candidiasis, an infection caused by *Candida albicans*, was first described in 1838 by pediatrician Francois Veilleux. This condition has diverse classifications according to Greenberg et al²:

Primary Oral Candidiasis: a. Acute Form: Pseudomembranous, Erythematous.

b. Chronic Form: Candida-associated lesions such as Denture Stomatitis, Angular Cheilosis, Median Rhomboid Glossitis.

Secondary Oral Candidiasis: Candidiasis Diffuse Chronic Mucocutaneous Candidiasis,

Familial Mucocutaneous Candidiasis Chronic Granulomatous Diseases Candidosis-Endocrinopathy Syndrome Acquired Immune Deficiency Syndrome (AIDS).

Local Predisposing Factors: Impaired salivary function is a predisposing factor, with decreased salivary flow increasing the risk. Wearing full dentures, particularly in the elderly, creates a microenvironment conducive to *Candida* growth. Inhaled steroids and other factors like oral cancer, leukoplakia, and a high carbohydrate diet contribute to susceptibility.

Systemic Factors: Various systemic factors, including extremes of age, smoking,

diabetes, immunosuppressive conditions, malignancies, and nutritional deficiencies, can predispose individuals to *Candida* infections.

Laboratory Tests: Diagnosis involves submitting specimens like smears, swabs, imprint samples, salivary samples, oral rinse samples, and biopsy specimens to the laboratory, considering the clinical forms of candidiasis.

Treatment Approach: The treatment of oral candidiasis emphasizes early and accurate diagnosis, correcting predisposing factors, and evaluating the *Candida* type.

Conservative measures, including good oral hygiene and denture removal at night, are recommended. Antiseptic and antibacterial rinses like Chlorhexidine or Hexetidine are effective, especially in denture stomatitis.

Pharmacological Treatment: Treatment differentiates between topical and systemic drugs based on the extent of infection. Nystatin is the primary choice for mild and localized candidiasis, with other options like Clotrimazole and Amphotericin B. Second-line treatments, including Ketoconazole, Fluconazole, and Itraconazole, are reserved for severe cases or immuno-suppressed patients.

III. CONCLUSION:

A holistic approach to oral candidiasis involves understanding local and systemic predisposing factors, employing conservative measures, and judicious use of antifungal drugs.

This comprehensive review provides insights into the multifaceted management of oral candidiasis.

Treatment of Candidiasis CID, 38: 161-89.

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