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Candidal Leukoplakia on Maxillary and Mandibular Alveolar Ridge in an Edentulous Patient: A Case Report

Ullas Saxena*
Senior Lecturer, Department of Oral Medicine, Guru Gobind Dental College, Burhanpur, M.P., India.

Case Report
Address of Correspondence Author
Dr. Ullas Saxena; Department of Oral Medicine, Guru Gobind Dental College, Burhanpur, M.P., India.
E-mail: ullas24saxena@gmail.com
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ABSTRACT

Since the evolution of mankind pathogens, diseases and injuries have been his true companion. Every part of the human body is vulnerable to getting affected by pathogens like bacteria, viruses, parasites, or fungal infections; so the oral cavity is no such exception. The oral cavity is affected by many lesions, traumatic injuries, and moreover by many pathogenic infections. One such infection, occurring in the oral cavity is by a yeast-like fungus called, 'Candida Albicans, and the infection occurring is called, 'Oral candidiasis'. The older term for candidiasis is, 'moniliasis', which is not used nowadays. There are many clinical appearances of oral candidiasis, one of such forms is, 'chronic hyperplastic candidiasis, also called 'candidal leukoplakia'. This article reviews a case report about a candidal infection that occurred on maxillary and mandibular alveolar ridge in an edentulous patient.

Keywords: Candida Albicans, Candidal Leukoplakia, Fungal Hyphae.

Introduction

Infection with the yeast-like fungal organism Candida albicans is termed candidiasis is or, as the British prefer, candidosis. An older name for this disease is moniliasis; the use of this term should be discouraged because it is derived from the archaic designation Monilia albicans. Like many other pathogenic fungi. C. Albicans may exist in two forms, a trait known as dimorphism. The yeast form of the organism is believed to be relatively innocuous, but the hypha I form is usually associated with the invasion of host tissue. Candidiasis is by far the most common oral fungal infection in humans and has a variety of clinical manifestations, making the diagnosis difficult at times.[1]

Fungi are free-living, eukaryotic organisms that exist as yeasts (round fungi), moulds (filamentous fungi), or a combination of these two (dimorphic fungi). Oral candidiasis is one of the common fungal infections, affecting the oral mucosa. These lesions are caused by the yeast Candida albicans. Candida albicans are one of the components of normal oral microflora and around 30% to 50% of people carry this organism.[2]

The fact that many oral leukoplakias are associated with Candida infections was first reported by Cernea et al. (1965) and Jepsen and Winther (1965). However, Lehner (1964, 1967) recognized the presentation of

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chronic candidal infection in the form of leukoplakia and introduced the term "candidal leukoplakia". The terms "chronic hyperplastic candidosis" (CHC) and "candidal leukoplakia" (CL) appear to have been synonymously used until the mid-1980s (Cawson, 1966, Cawson and Lehner, 1968), but confusion prevailed, since chronic mucocutaneous candidal lesions, encountered in patients with endocrine and immune defects, and affecting the skin and other mucosae, were also described by some as chronic hyperplastic candidosis. Several authors, therefore, preferred the term "candidal leukoplakia" to describe lesions confined to the mouth alone. In recent times, however, the term "candidal leukoplakia" appears to have lost currency, and most histopathologists prefer the term "chronic hyperplastic candidosis/candidiasis".[3]

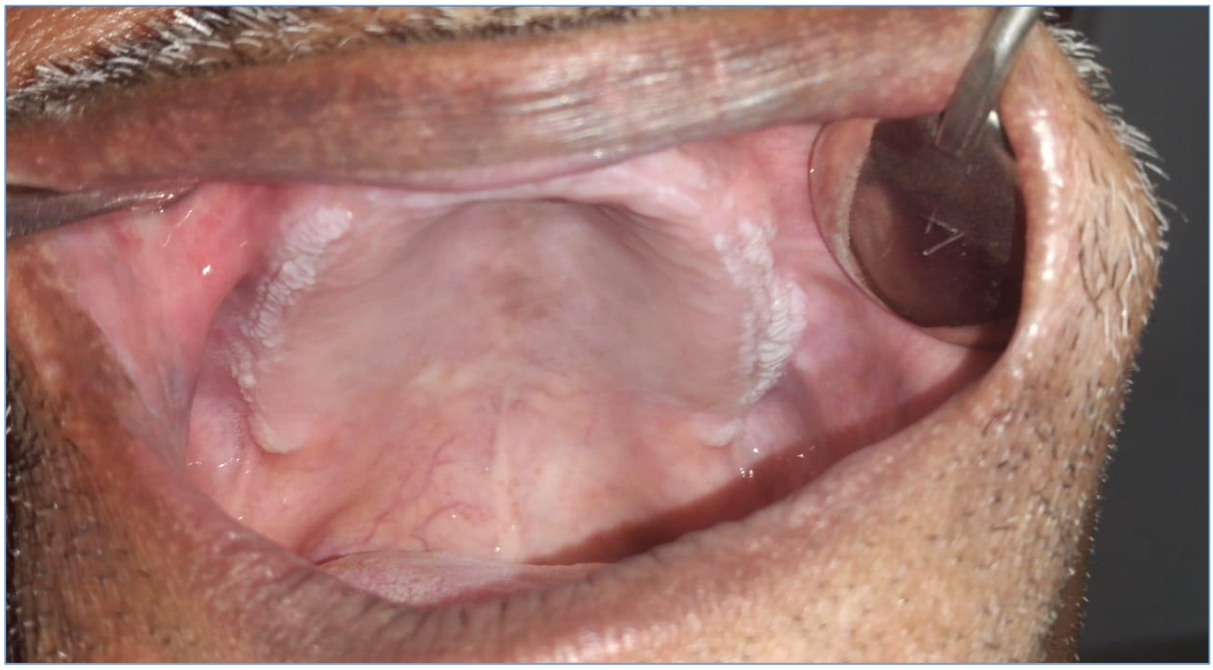
Case Report

An edentulous patient reported at Guru Gobind Singh Dental College, at Burhanpur, on 5th December 2021.

His chief complaint was the presence of a white curd-like substance all around his denture wearing areas. He gave a history of wearing maxillary and mandibular dentures eight months ago. He told that those dentures were loose in his upper and lower jaws so he did not wear them for five months. He also had a complaint of a burning sensation in the mouth on the right side of the mouth. The patient was normal in appearance with no history of any systemic disease.

On inspection, the curd-like patch was seen all around covering maxillary and mandibular alveolar ridge. The lesion was white in appearance covering almost whole maxillary and mandibular alveolar ridge areas. On palpation, the lesion was non scrapable, no tender in nature. No burning sensation was present in alveolar ridges. On the right side, near buccal mucosa a small ulcer was present.

Based on the clinical findings, a diagnosis of homogenous leukoplakia was made for a lesion on the alveolar ridges, and a diagnosis of the aphthous ulcer was made for the lesion present near buccal mucosa on the right side of the mouth.



White patch present all around alveolar ridge in maxillary arch in the edentulous patient. The lesion was non tender and non-scrapable in nature.

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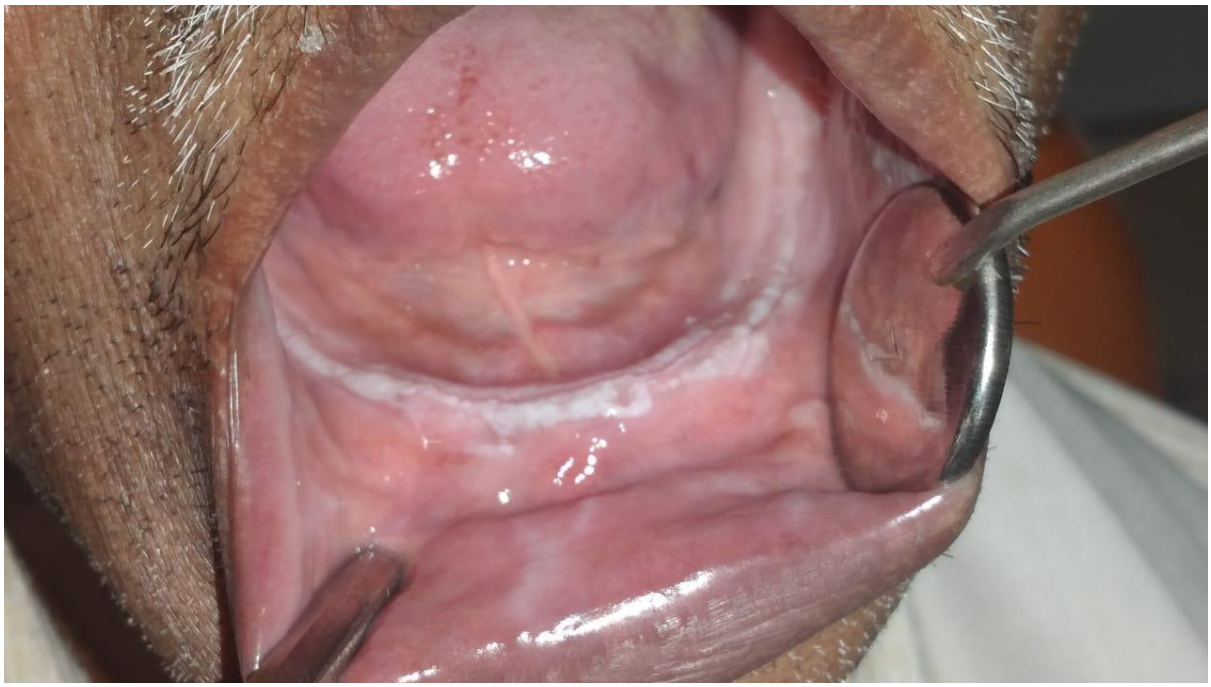

White patch present all around alveolar ridge in mandibular arch in the edentulous patient. The lesion was non tender and non-scrapable in nature.

Tretinoin ointment (0.025%) was given to apply on the upper and lower alveolar ridges three to four times a day for fifteen days. A chlorhexidine ointment (1%) was given to apply on the apthous ulcer for four times a day for fourteen days. A chlorhexidine antiseptic mouthwash was given for oral rinse two times a day for one week. The patient was kept on follow up.

The patient came back after one month. He had relief from the burning sensation in the mouth. The ulcer was healed completely. But; the condition of the alveolar ridges was the same as before, revealing white patches on them.

The patient's case was discussed with the oral pathologist. He diagnosed the lesion as 'chronic hyperplastic candidiasis or Candidal leukoplakia'. Based on the clinical findings, his medication was changed to antifungal drugs. The patient was given clotrimazole (1% w/v) antimycotic (antifungal cream) to apply on the maxillary and mandibular alveolar ridges. He was also given benzocaine (20%w/w) mouth gel for oral mucosal pain. Both ointments were given for application for 20 days. The patient was kept on follow-up.

After the medication was changed to antifungal ointment, the results were remarkably good with a good prognosis. The lesion on the maxillary alveolar ridge was cured up to seventy percent and on the mandibular ridge up to thirty percent. The patient was told to continue the medication for more than fifteen days.

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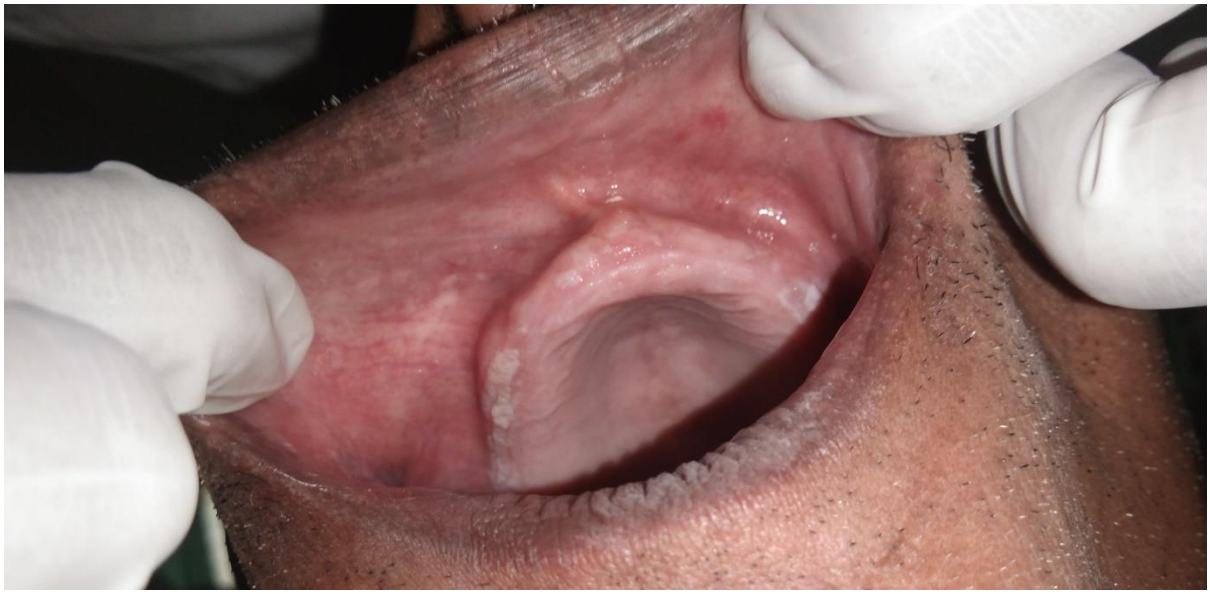
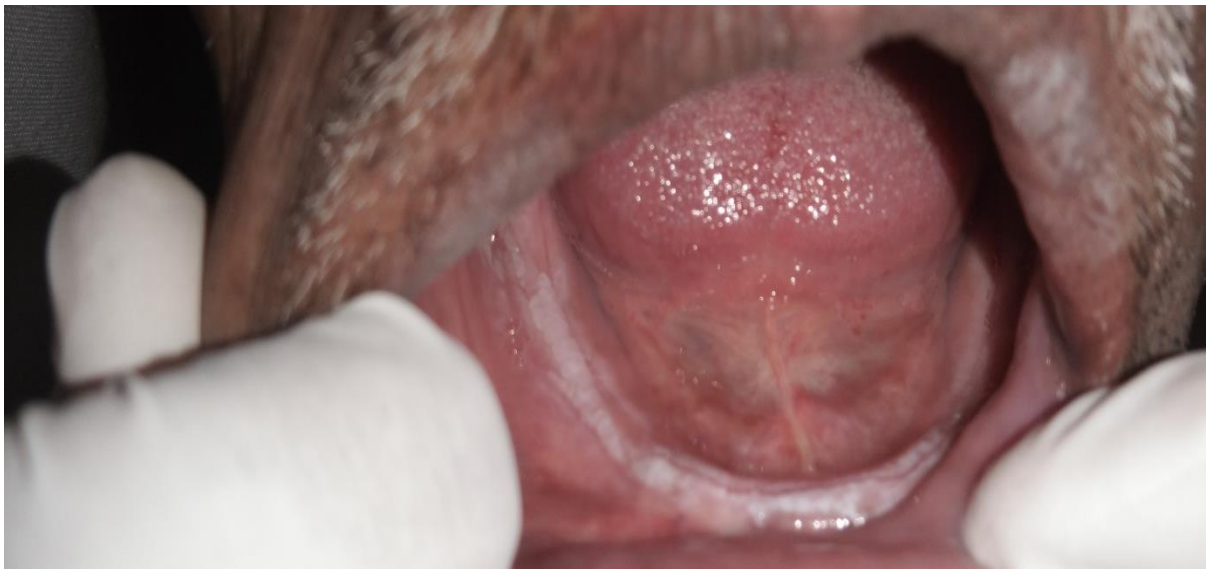


The lesion on the maxillary alveolar ridge had cured about seventy percent after application of antifungal ointment.



The lesion on the mandibular alveolar ridge had cured about thirty percent after application of antifungal ointment.

Discussion

Oral candidiasis (OC) is one of the common infections encountered by the clinicians in the oral cavity, mostly caused by Candida albicans, which is a normal commensal of the oral cavity, skin, gastrointestinal tract, and genitourinary tract.[4] Pseudomembranous, erythematous, and chronic hyperplastic are the three types of primary oral candidiasis, out of which chronic hyperplastic candidiasis (CHC) is the least common.[5] Although Candida is more frequently isolated from women, the highest prevalence of chronic hyperplastic candidiasis is seen in middle-aged men who are smokers.[6] Chronic hyperplastic candidiasis is of two types:

Homogeneous/plaque and nodular/speckled type. Homogeneous type presents as white plaque that cannot be scraped off and is usually asymptomatic. Speckled type presents as multiple white nodules on an erythematous background and may be associated with pain and burning sensation. The most commonly affected site is the buccal commissure followed by buccal mucosa, palate, and tongue.[7]

Chronic hyperplastic candidiasis is of particular significance and concern because of its reported association with malignant transformation; hence, a biopsy is mandatory for accurate diagnosis.[8] Various treatment modalities have been suggested for its management ranging from topical and systemic antifungal agents to surgical methods.[9]

Conclusion

The main aim of the article is to put an emphasis on proper clinical diagnosis so that we could approach to proper treatment of the lesion or any disease with a good prognosis.

References

1. Neville; textbook of oral pathology, chapter: Fungal and protozoal diseases; 2nd edition.
2. Arun Singh, Renuka Agarwal, Aditi Murari et. al; Oral Candidiasis: A Review, Page no.1, Journal of Oral Pathology, doi: https://doi.org/10.4103/0973-029x.141325
3. M.A.M. Sitheeque, L.P. Samaranayake; Chronic Hyperplastic Candidosis/Candidiasis (Candidal leukoplakia); Crit Rev Oral Biol Med, 14(4):253-267 (2003). doi: https://doi.org/10.1177/154411130301400403
4. Pontes HA, Paiva HB, de Freitas Silva BS, Fonseca FP, da Silva FB,Pontes FS, et al. Oral candidiasis mimicking an oral squamous cell carcinoma: Report of a case. Gerodontology 2012; 29:70-4. doi: https://doi.org/10.1111/j.1741-2358.2010.00371.x
5. Sherman RG, Prusinski L, Ravenel MC, Joralmon RA. Oral candidiasis. Quintessence Int 2002; 33:521-32.
6. Williams D, Lewis M. Pathogenesis and treatment of oral candidosis. J Oral Microbiol 2011; 3:5771 doi: https://dx.doi.org/10.3402%2Fjom.v3i0.5771
7. Sitheeque MAM, Samaranayake LP. Chronic hyperplastic candidosis/candidiasis (candidal leukoplakia). Crit Rev Oral Biol Med 2003; 14:253-67. https://doi.org/10.1177/154411130301400403
8. Coronado-Castellote L, Jiménez-Soriano Y. Clinical and microbiological diagnosis of oral candidiasis. J Clin Exp Dent 2013; 5:e279-86. doi: https://dx.doi.org/10.4317%2Fjced.51242
9. Sitheeque MAM, Samaranayake LP. Chronic hyperplastic candidosis/candidiasis (candidal leukoplakia). Crit Rev Oral Biol Med 2003; 14:253-67. doi: https://doi.org/10.1177/154411130301400403

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