Section: Dentistry

JAMP

Case Report

SEVERE PULMONARY INFECTION AND ORAL CANDIDIASIS IN A 53-YEAR-OLD MALE: A CASE OF UNDIAGNOSED HIV

Received : 24/01/2026
Received in revised form : 04/03/2026
Accepted : 22/03/2026
Keywords:
Oral candidiasis, HIV, pneumonia, multiple organ dysfunction syndrome, case report.

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DOI: 10.47009/jamp.2026.8.2.112
Source of Support: Nil,
Conflict of Interest: None declared
Int J Acad Med Pharm
2026; 8 (2); 605-607

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ABSTRACT

Background: This case report explores the clinical journey of a 53-year-old male patient with pronounced oral discomfort, respiratory issues, hemoptysis, and significant breathlessness. Initial assessments indicated oral candidiasis and pneumonia, but as his symptoms intensified, further testing revealed HIV infection. This case emphasizes the critical role of oral health as an indicator of systemic diseases and highlights the necessity for prompt diagnosis and an interdisciplinary management approach.

INTRODUCTION

Oral health is an important barometer of systemic conditions, often revealing the first signs of broader health issues.[1] Opportunistic infections such as oral candidiasis are frequently associated with immunocompromised individuals, particularly those with HIV/AIDS.[2] Candidiasis presents in various forms, including white patches or soreness within the oral cavity, and often signals underlying immunosuppression.[3]

The relationship between oral manifestations and systemic health is complex yet significant.[4] The oral cavity hosts a diverse microbiome, which typically remains balanced by immune responses.[5] When immune function is compromised, as in cases of immunosuppression, the likelihood of opportunistic infections increases.[6] Oral candidiasis, in particular, is often an early sign of HIV, serving as a prompt for further investigation.[7]

This case report outlines the experience of a 53-year-old male with severe oral candidiasis and respiratory symptoms, culminating in a new diagnosis of HIV.[8]

This patient's progression demonstrates the value of recognizing opportunistic infections early in immunocompromised patients and underscores the importance of a comprehensive treatment approach addressing both oral and systemic health concerns.[9]

CASE REPORT

A 53-year-old male presented to the Dental Outpatient Department at Sree Uthradom Thirunal Academy of Medical Sciences (SUTAMS), Trivandrum with several concerning symptoms. Initial complaints included tongue pain, appetite loss, and a persistent cough lasting five days. He reported a previously asymptomatic week but developed a productive cough with white sputum for four days and hemoptysis on the last day. He also experienced intermittent fever for two days and two episodes of loose stools within the past day. Notably, he described progressive breathlessness over the last week.

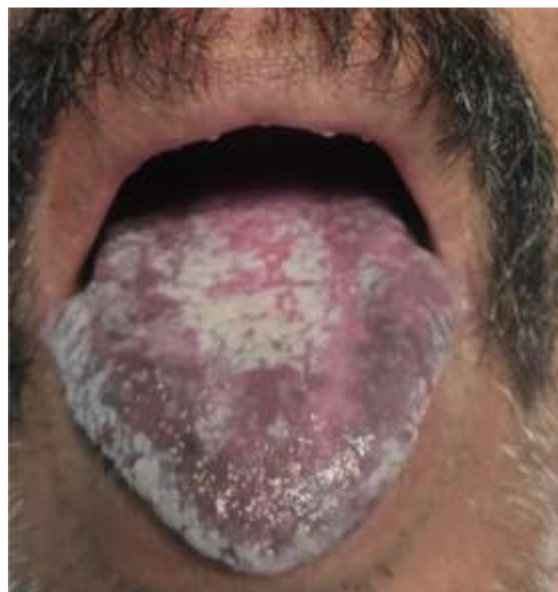

Figure 1

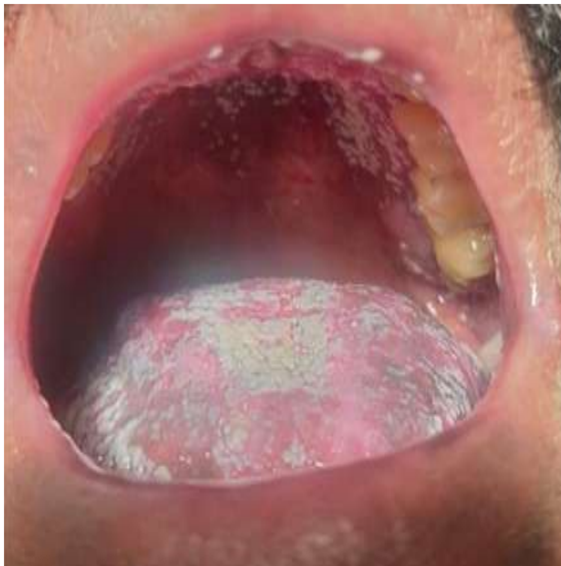

Figure 2

Figures 1 and 2 depict the oral candidiasis presentation observed during the dental examination. His medical history included mild breathlessness six months prior and an unrelated accident requiring orthopedic attention. He reported no blood transfusions or systemic illnesses. Family history revealed a brother-in-law with tuberculosis, and his personal habits indicated a decrease in appetite and sleep, reflecting a decline in health.

Vital signs upon examination included blood pressure at 90/60 mmHg, a pulse of 130/min, and SpO_2 at 90%. Respiratory examination revealed right-sided crepitations and bilateral wheezing. Blood tests, a chest X-ray, and a dental consultation indicated oral candidiasis, thrombocytopenia, and right upper lobe consolidation, leading to his admission for further assessment.

High-resolution CT (HRCT) showed consolidations with air bronchograms in both lungs, suggestive of severe pneumonia. Subsequent tests, including renal function analysis, sputum CBNAAT, culture, and viral markers, were conducted. The patient deteriorated, developing septic shock (qSOFA score of 2), signs of multiple organ dysfunction syndrome (MODS), hypoglycemia, and acute kidney injury (AKI) with a creatinine level of 4.3 mg/dL.

Bicytopenia and elevated procalcitonin were observed. Arterial blood gas analysis indicated severe metabolic acidosis.

Management included intravenous ceftriaxone, oral Fluvir, platelet transfusions, and nebulization with Ipravent and Budecort. As his condition worsened, treatments expanded to intravenous piperacillin-tazobactam, bicarbonate infusion, and doxycycline. Further examination identified hepatosplenomegaly, raising concerns about systemic infection. Eventually, tests confirmed HIV, adding complexity to his clinical picture.

DISCUSSION

The link between oral health and systemic disease is becoming increasingly evident in clinical practice.[10] In this case, the patient's oral candidiasis was an early indicator of significant immunosuppression due to undiagnosed HIV.[11] His oral discomfort and symptoms were not isolated but were instead connected to an underlying systemic issue.[12] Candidiasis can indicate severe immune compromise, highlighting the need for heightened awareness of opportunistic infections in such patients.[13]

This case underscores the importance of rapid diagnosis and intervention. The combination of respiratory symptoms and oral findings suggested a severe pulmonary infection that was compounded by the patient's weakened immune system.[14] This underscores the necessity for healthcare providers to maintain a high level of suspicion for HIV when patients present with concurrent respiratory and oral symptoms.[15]

Effective management of this patient required a multidisciplinary approach.[16] Identifying MODS necessitated an aggressive treatment regimen involving broad-spectrum antibiotics, intravenous support, and careful monitoring.[17] In HIV-positive patients, immune response complications heighten the need for comprehensive care.[18]

Beyond individual care, this case highlights the broader public health implications of oral health. Regular dental exams and awareness of oral symptoms can be essential for detecting patients at risk for systemic diseases, particularly in high-risk populations.[19]

Increased awareness and education on the systemic implications of oral lesions could lead to more timely diagnoses of underlying conditions.[20]

CONCLUSION

This case highlights the challenges of diagnosing and managing a patient with both oral and systemic diseases. The rapid progression and confirmation of HIV illustrate the importance of thorough evaluations and recognizing opportunistic infections like oral candidiasis in immunocompromised individuals.

An integrated approach encompassing both oral and systemic health is crucial in achieving optimal patient outcomes. As the links between oral and systemic health gain recognition, healthcare providers can improve disease management, ultimately enhancing patient quality of care. This case reinforces the role of oral health as a key component in the holistic assessment of patient wellness.

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ISSN (O): 2687-5365; ISSN (P): 2753-6556

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ISSN (O): 2687-5365; ISSN (P): 2753-6556