

Letter to the Editor

Post Covid-19 and Dentistry Revealing the silent condition - Rhino Maxillary Mucormycosis

Dear Editor,

The author would like to highlight the uncommon condition of rhinomaxillary mucormycosis which presents with a common complaint of periodontal abscess. This is highly significant in the current global scenario of the Covid-19 pandemic, as this deadly condition if diagnosed timely (by the dental surgeon) can save lives and prevent serious lifelong morbidity. Acute lung damage in Covid-19 was controlled worldwide by administering corticosteroids. This led to transient hyperglycemia, which coupled with low immunity served as an ideal environment for the fungal spore's growth and proliferation.¹ Species like *Candida*, *Aspergillus* and *Rhizopus* are normally not virulent in healthy individuals but can cause disseminated fatal infections in an immune-compromised host.² Infection caused by these opportunistic pathogenic fungi present with non-specific symptoms and are often difficult to diagnose. Mucormycosis is the third most common opportunistic fungal infection caused by *Rhizopus*.³ Two such cases reported to the Department of Periodontics, Maulana Azad Institute of Dental Sciences, New Delhi with similar oral findings and common history of Covid-19 recovery. Both the patients were on 3 weeks of steroid therapy during which they had transient hyperglycemia. After 4 weeks of recovery, they developed painful gum boil/s. Clinical findings revealed periodontal abscess and tooth mobility.

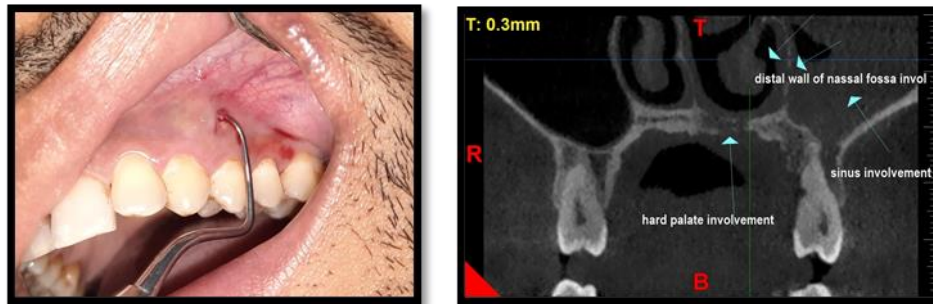


Fig. 1a) Initial clinical presentation of Mucormycosis with single periodontal abscess being curretted; **1b)** CBCT revealing hard palate, distal wall of nasal fossa and sinus involvement.

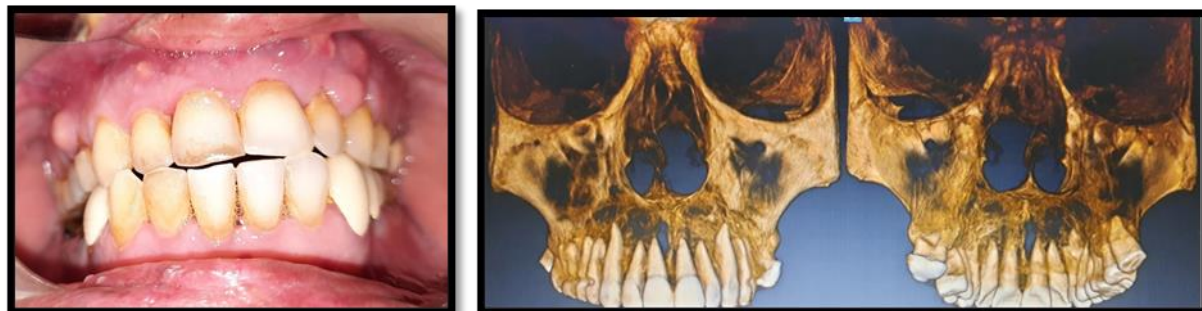


Fig. 2a) Initial clinical presentation of Mucormycosis with multiple periodontal abscesses; **2b)** CBCT revealing complete loss of cortical plates with respect to 15 to 26 with nasal floor perforations.

First case was 36 years old male with a single periodontal abscess in relation to 24 (Fig. 1a). IOPA showed no significant radiographic findings. The abscess was curretted, irrigated and antibiotic & analgesics were prescribed. On 5 days follow up, it was observed that mobility had extended to 21, 22 and 23 regions. Palatal swelling was also present in relation to 22, 23 and 24 regions. Culture swabs were taken from the abscess and maxillary CBCT was advised to the patient. Culture reports were negative for fungal growth, but CBCT revealed bony changes with left nasal and palatal perforation (Fig. 1b). Patient was immediately referred to the ENT department where provisional diagnosis of Mucormycosis was made and treatment was started for the same. Similarly, the second case reported with multiple periodontal abscesses in the maxillary buccal vestibule along with palatal swelling and unhealed extraction wound in relation to 26 (Fig. 2a). Ten days ago, the patient had undergone extraction of 26 which was mobile. The patient had a negative KOH nasal swab report, yet maxillary CBCT was advised by us. It revealed bilateral maxillary cortical bone destruction with nasal perforation (Fig. 2b). Patient was referred to ENT department without any delay.

The purpose of this letter is to emphasize the crucial role of the dental practitioner in early diagnosis of rhino-maxillary mucormycosis which usually presents as an abscess in the maxillary buccal vestibule. The prompt decision to defer dental treatment, advise CBCT/CECT and refer to ENT surgeon if any naso-maxillary involvement is suspected as this could prevent further fungal invasion into the surrounding tissues and can even be life saving for some.

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