

# Mucormycosis-Induced Maxillary Necrosis and Diabetes from NTH And HMC Hospitals in Peshawar

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## ABSTRACT

Necrosis of the maxilla is quite unusual owing to the high vascularity of this tooth. For example, maxillary necrosis may be caused by herpes zoster, osteomyelitis, or fungal diseases such mucormycosis and aspergillosis. As an opportunistic, life-threatening fungal illness, mucormycosis mostly affects immunocompromised individuals. Inhalation of fungus spores causes infection of the nose and paranasal sinuses. Orbital and intracranial tissues may be infected directly or via blood arteries, depending on how quickly the infection spreads. Hard and soft tissue necrosis results from thrombosis caused by fungal invasion of arteries. An uncontrolled diabetic patient had maxillary necrosis due to mucormycosis, and we provide this case to highlight the need of early detection of this potentially deadly fungal infection.

We briefly address several illnesses that might cause maxillary necrosis and review current thinking in the therapy of mucormycosis. This fatal fungal infection may be reduced in mortality and morbidity by early identification and immediate treatment.

**Keywords:** Maxillary bone necrosis, mucormycosis, diabetes.

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## INTRODUCTION

Most often, it originates in the nose and paranasal sinuses, mucormycosis is one of the fastest-progressing and most fatal forms of fungal infection in humans <sup>1</sup>. Thrombosis inside blood vessels reduces blood flow and necrosis of both hard and soft tissues, which is caused by this fungus <sup>2-3</sup>. The fungus may spread to the orbital and cerebral tissues if it gets into the arteries <sup>4</sup>. When mucormycosis first appears, it is usually as an acute infection that affects the nose,

lungs, gastrointestinal tract, skin, or elsewhere in the body [5](#). Chronic and rather indolent infection led to maxillary necrosis in the current instance, which was diagnosed after a lengthy and indolent course [6-7](#).

## CASE REPORT

For the last three months, a 52-year-old male has been experiencing discomfort in the right maxillary posterior area. The pain was modest, but worsened as I bent my knees.chewing food and concentrating on the task at hand. He also complained of a runny nose and a sore throat, as well as a headache. Fever,pus discharge, paraesthesia or a foul odour were all absent from the patient's medical history.

For reasons of poor periodontal health, a year before, the patient had his right maxillary first, second, and third teeth extracted from his mouth. Sockets never fully healed after extractions For the previous year, the patient had been plagued by chronic pain and suffering.

The patient had been treated with oral hypoglycemics for the previous two years as a known diabetic.

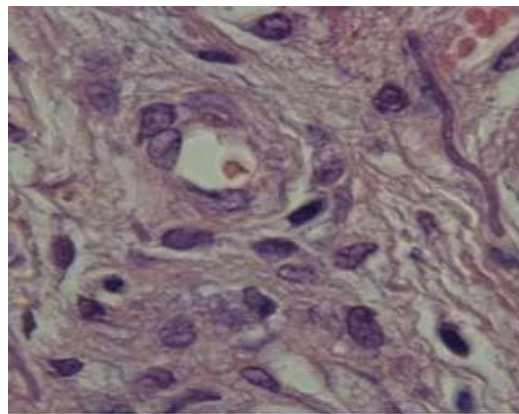
For the first four years of his life, he was under the care of a physician (Tab. PIO-G, Indi pharma). In spite of this, he has been taking the same medicine (including ayurveda and herbal remedies) for the lastfive years without seeking medical advice or having his blood sugar checked regularly. In order to savemoney, the patient did not take the prescription exactly as recommended and so did not undergo a lab tests.



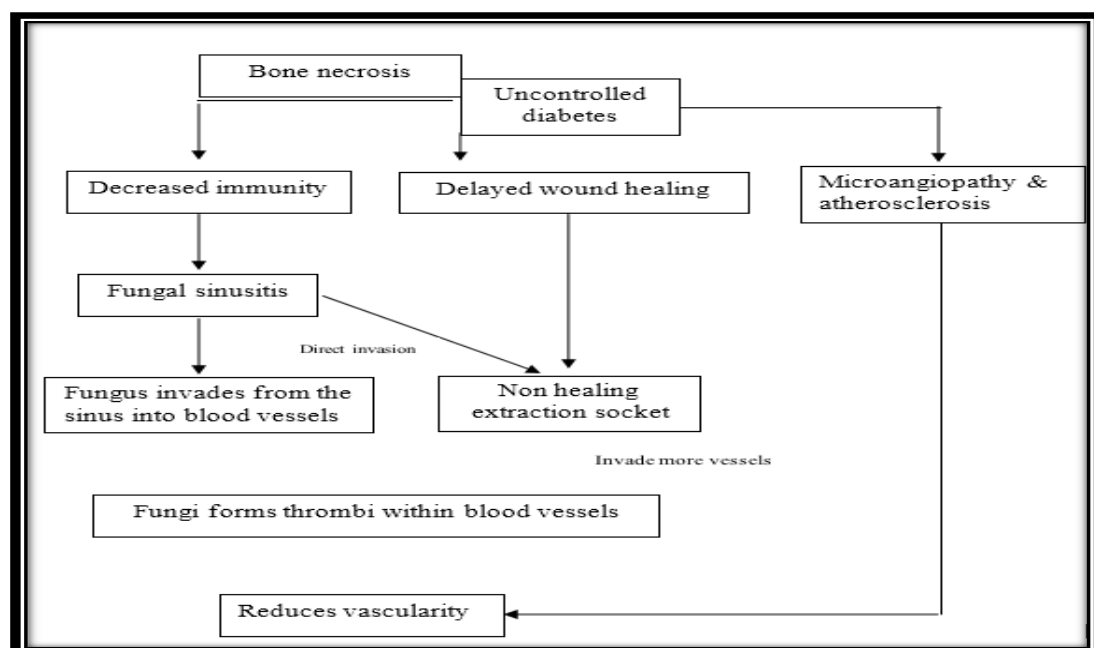
**Fig. 1.** The soft tissues that remained surrounding the maxillary molars were all normal.



**Fig. 2.** The right maxillary sinus' lateral wall has been eroded, as can be seen from the water's perspective.



**Fig. 3.** Grocott's silver methenamine staining method revealed non-septate mucormycotic hyphae. Firsttable: This case study shows mucormycotic infection-caused diabetic bone necrosis.



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