

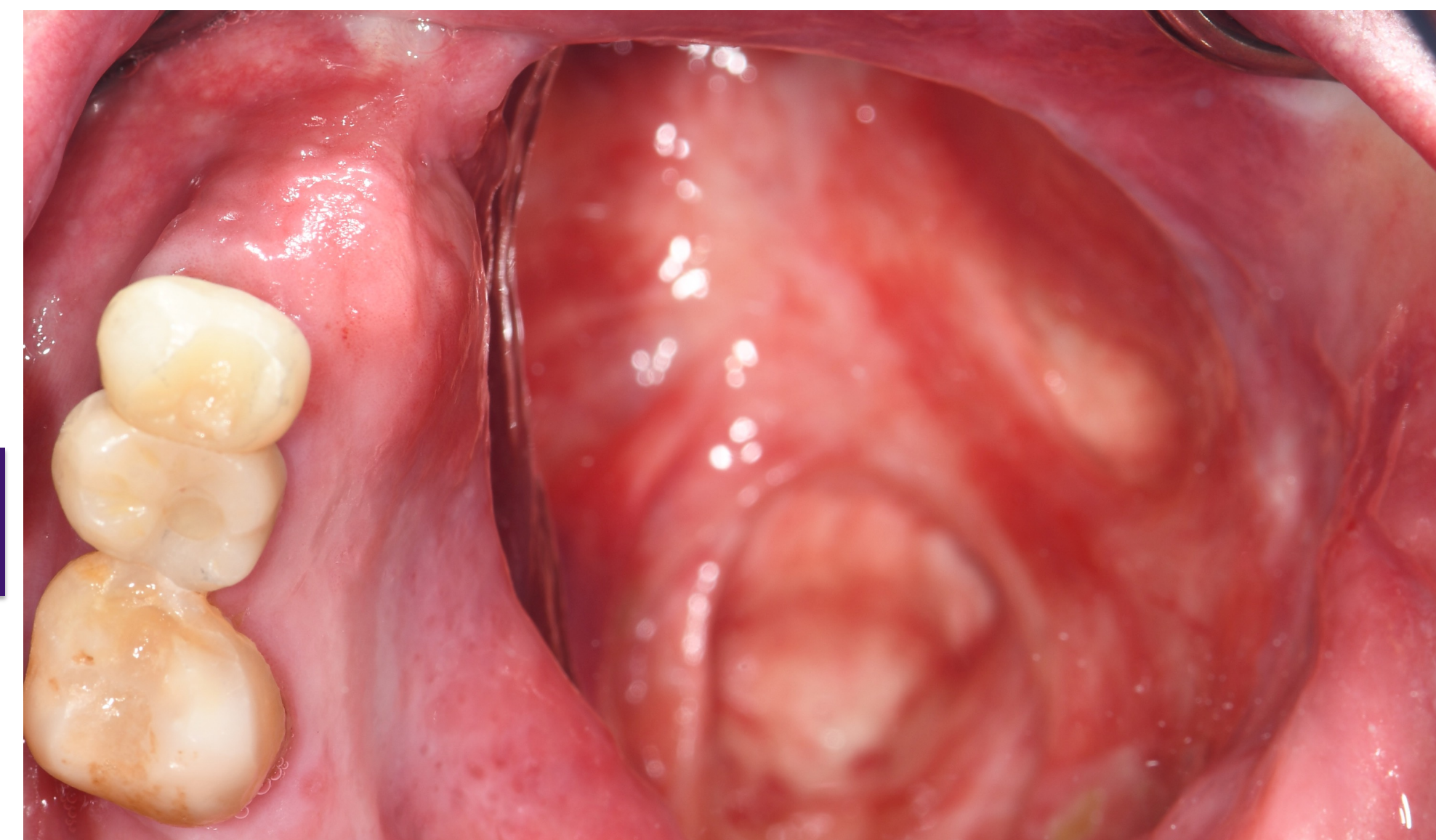
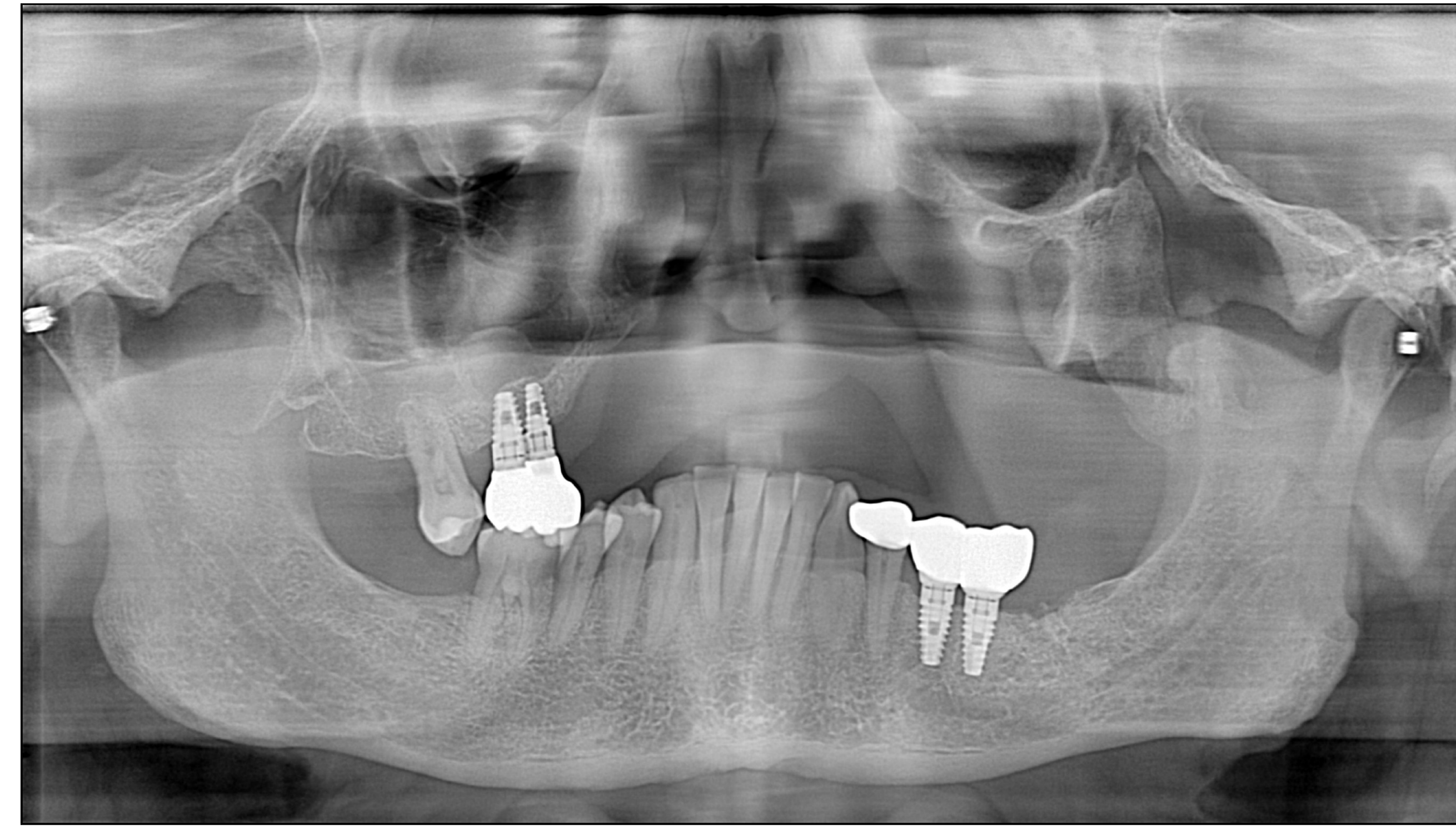


INTRODUCTION

Mucormycosis is a rare, aggressive fungal infection primarily affecting immunocompromised individuals, leading to significant bone destruction and osteomyelitis. The infection's progression involves vascular invasion, causing thrombosis and necrosis of tissues. This report presents a case involving substantial maxillary defect, rehabilitated using an Obturator with a Swing-Lock partial denture design. This innovative design offers effective functional and esthetic restoration in complex clinical scenarios.

METHODS

An 80-year-old male with mucormycosis-induced maxillary bone loss and osteomyelitis underwent surgical debridement, left maxillectomy, and antifungal therapy. For prosthetic rehabilitation, a custom Obturator with a Swing-Lock partial denture design was designed to enhance retention and stability, utilizing a labial bar framework engaging remaining abutments (dental implants at positions #4 and #3) with a hinge mechanism to reduce trauma during insertion and removal.



RESULTS

The Obturator with a Swing-Lock partial denture design provided effective functional and retention. Over 12 months, the prosthesis showed excellent stability, patient comfort, and improved oral function.

CONCLUSIONS

The Obturator with a Swing-Lock partial denture design is a viable prosthetic solution for extensive maxillary defects with abutment teeth remaining caused by osteomyelitis secondary to mucormycosis. Its design enhances retention, stability, and transmits less stress to abutments teeth, addressing complex anatomical and functional challenges effectively. Further research is recommended to assess the long-term outcomes and efficacy of this approach in similar cases involving integrated dental implants.