

Implant placement in an atrophic posterior mandible with osteomyelitis

Asvaplungprohm, Tanatorn; Lima, Erick; Huzefa, Talib; Cho, Sang-Choon.

Ashman Department of Periodontology and Implant Dentistry New York University College of Dentistry

INTRODUCTION

Osteomyelitis is an inflammatory process most prevalence in mandible which includes alveolar bone necrosis, sclerosis and intraorally presented with exposed bone. The etiologies are associated with odontogenic infection, systemic disease, medications such as chemotherapeutic agent, steroids and bisphosphonates. This case report presents a 61-year-old female patient from incidental finding of osteomyelitic lesion at lower left mandibular area, management of the lesion, custom alveolar ridge splitting to improve severe ridge deficiency and restoration on the site with implants.

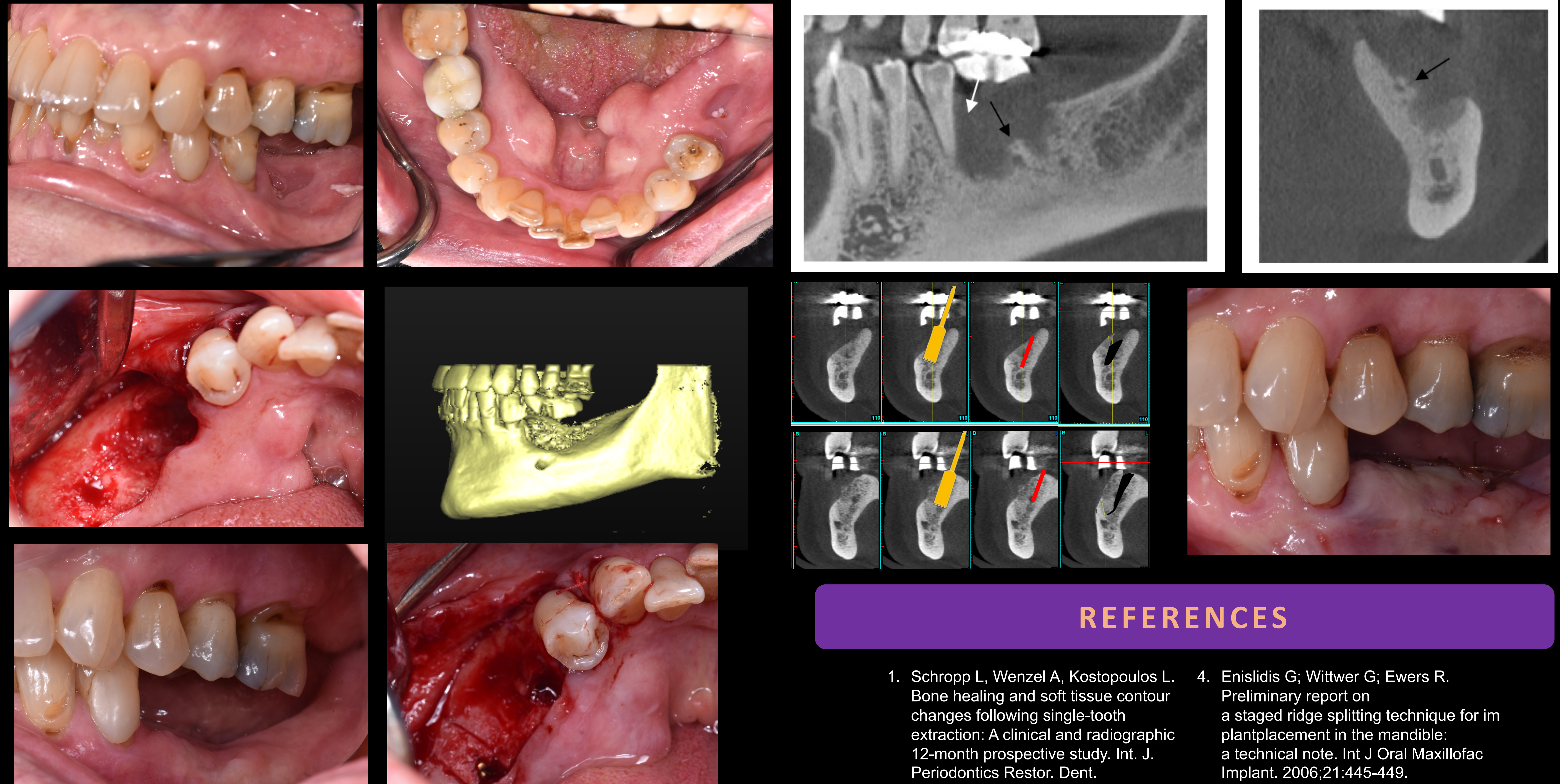
MATERIAL AND METHODS

A 61-year-old female patient was presented in Ashman Department of Periodontology and Implant Dentistry with the chief complaint of "I haven't chewed on left side for years. This tooth has been moving for quite a while." Intraoral examination showed #19 (lower left mandibular first molar) with grade III mobility and #20 with grade II mobility. Lower left mandibular first molar was extracted and a CBCT was obtained 2 months post-extraction. Sclerotic bone and sequestrum was presented on the lingual surface of site #20&#19. The lesion was radiographically suggestive of osteomyelitis. A debridement procedure was planned. Six months post debridement, the site was re-evaluated. There was vertical bone defect showing deficiency in bone height. Custom alveolar ridge splitting was done to improve the ridge topography. Implants were placed, following by 3 months loading protocol. Patient was satisfied with the outcome.

RESULT

Following debridement of the lesion, the site presented vertical and horizontal bone deficiency. The deficiency was managed by custom alveolar ridge splitting technique, resulting in clinical improvement of the site. The site was restored with implant placements. Patient was satisfied.

CASE PRESENTATION



REFERENCES

- Schropp L, Wenzel A, Kostopoulos L. Bone healing and soft tissue contour changes following single-tooth extraction: A clinical and radiographic 12-month prospective study. Int. J. Periodontics Restor. Dent. 2003;23:313-323.
- Hämmerle CH, Araújo MG, Simion M. Osteology Consensgroup 2011. Evidence-based knowledge on the biology and treatment of extraction sockets. Clin. Oral Implant. Res. 2012;23:80-82.
- Buser D; Martin W; Belser UC. Optimizing esthetics for implant restorations in the anterior maxilla: anatomic and surgical considerations. Int J Oral Maxillofac Implant. 2004;19 Supple:43-61
- Enislidis G; Wittwer G; Ewers R. Preliminary report on a staged ridge splitting technique for im plantplacement in the mandible: a technical note. Int J Oral Maxillofac Implant. 2006;21:445-449.
- Koo S, Dibart S, Weber HP. Ridge-splitting technique with simultaneous implant placement. Compend Contin Educ Dent. 2008;29:106-110.
- Raed O. Kadi, Buddhapoom Wangsrimongkol, Parnward Hengjeerajaras, Stuart Froum, Sang-Choon Cho. The Custom Alveolar Ridge Splitting (CARS) Technique for Predictable Horizontal Ridge Augmentation in the Atrophic Anterior Maxilla - A Retrospective Case Series Study. Manuscript in preparation

CONCLUSION

Ridge splitting is a viable technique to improve ridge topography in area with limited bone height. The deficiency in buccal bone height was compensated by the lingual bone that was split using custom alveolar ridge splitting technique. Clinical gain in buccal bone height allows for subsequent implant restoration.