Management of endo-perio lesion with presence of intraosseous defect: Clinical case report.

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INTRODUCTION

Periodontal disease is a complex and infectious condition with multifactorial origins, resulting in detrimental effects such as the loss of supporting structures. Moreover, the severity of this disease can escalate, potentially affecting the dental pulp via the apical foramen. This scenario gives rise to combined lesions that manifest as intraosseous and gingival defects. The realm of periodontal regenerative surgery aims to address these issues by facilitating the restoration of the compromised tissue. This involves the formation of new dental support structures. Numerous biomaterials have undergone investigation for their potential to induce regeneration in intrabony defects. Selecting the appropriate case is crucial for ensuring the right choice of biomaterial and surgical technique. This strategic approach is fundamental in achieving optimal treatment outcomes

CASE REPORT

A 54-year-old female patient, classified as ASA II due to type II diabetes mellitus and arterial hypertension, presented at the periodontics department at UABC clinic seeking consultation regarding a concerning issue of tooth mobility. Upon clinical examination, tooth #8 exhibited a notably thick scalloped gingival phenotype. A probing depth of 8 mm was observed, alongside grade II mobility and signs of occlusal trauma. Radiographic assessment revealed the presence of an intraosseous defect extending to the apical third of the root in both the mesial and distal regions (refer to Fig. 1).

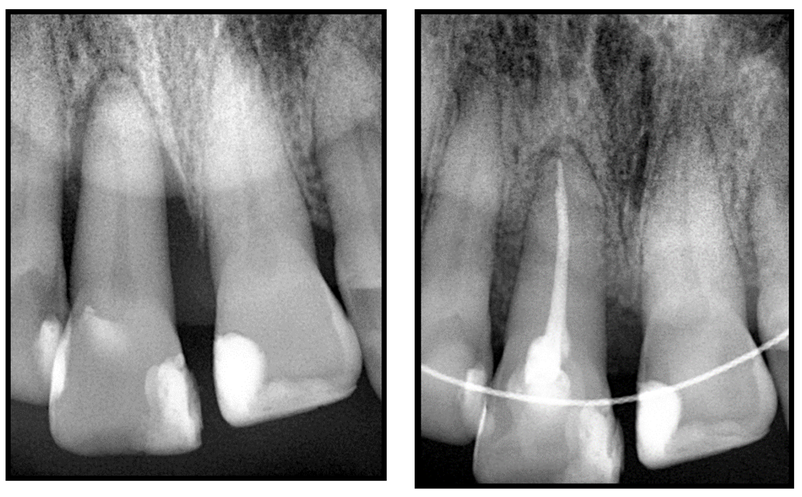


Fig. 1. Before surgery

After surgery

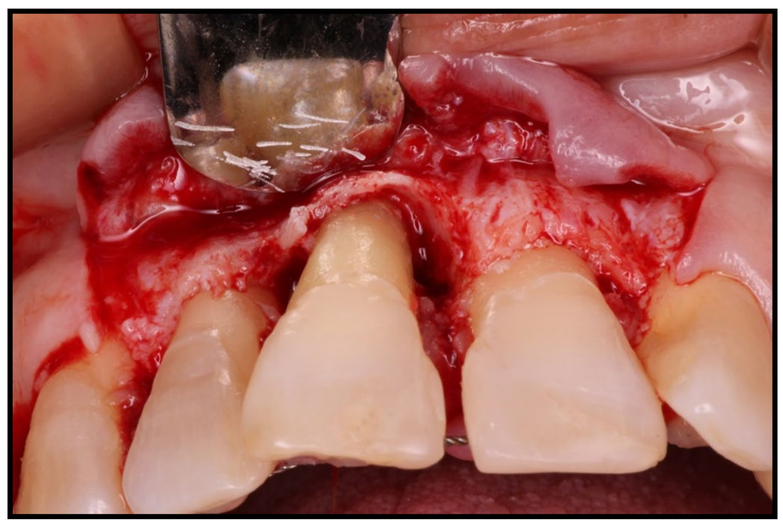


Fig. 2. Defect view.

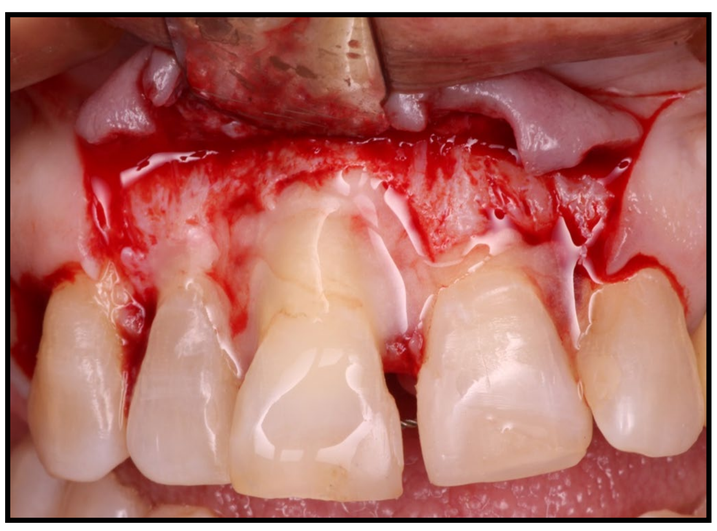


Fig.3. Root Surface conditioned.

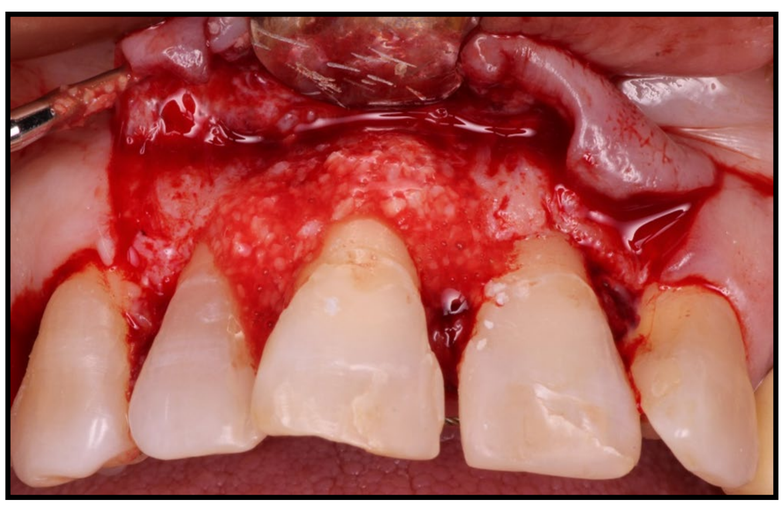
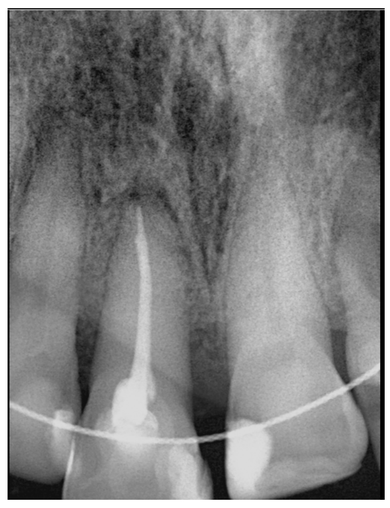


Fig. 4. EMD with xenograft.

Fig. 5. Suture nylon 6-0.

Subsequently the root surface was conditioned with PrefGel (EDTA 24%) for 2 minutes, then, the area was irrigated with physiological solution for 2 minutes (Fig. 3). EMD was applied to the defect and the remaining product was combined with xenograft and placed in the surgical area (Fig. 4). The flap was sutured using vertical mattress sutures and simple sutures with 6-0 nylon (image 5).

15 days after surgery.



1 month after surgery.

RESULTS

A post-operative out 15 days after regeneration showed stabilization of the graft and the gum lesions disappeared. At 1 month, a decrease in probing depth was observed, as well gain in clinical attachment, decreased dental mobility and a complete bone filling of the defect is observed by x-ray.

In the initial periodontal phase (Phase I), the patient underwent referral to the endodontic department for root canal treatment on tooth #8. Simultaneously, a splint was positioned to stabilize the tooth, secured along the palatal aspect and extending from tooth #6 to #10.

Transitioning into the subsequent periodontal phase (Phase II), a full-thickness trapezoidal flap was meticulously created, spanning from the mesial aspect of tooth #6 to the mesial aspect of #10. Root planing procedures were conducted on the affected tooth surfaces, and the granulomatous tissue within the defect was meticulously excised. Upon removal, the defect's three-wall morphology was evident, providing a clear visual understanding (please refer to image 2).

CONCLUSION

Several comparative studies have been carried out, in which the efficacy of the combination of enamel-derived proteins in conjunction with bone graft has been evaluated, where it has been shown that better results have been obtained in the combination of EMD with xenograft. Currently, guided tissue regeneration and the selection of biomaterials for its management are based on the architecture of the intraosseous defect, thus achieving a predictable and accurate result.

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