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Treatment of Localized Advanced Periodontal Disease: Case Report*
Periodontal disease is a chronic inflammation of the tooth supporting structures. It leads to bone and attachment loss which is irreversible. Extraction of horizontally impacted lower third molars (L3M) may result in localized periodontal pockets at the distal aspect of the adjacent lower second molars (L2M). A healthy 21-year-old male, non-smoker, was referred to the periodontist for a consultation regarding a swelling and associated halitosis, which started three months ago after the surgical extraction of right impacted L3M (A). Clinical examination revealed an eight millimeter-deep periodontal pocket, bleeding on probing, and suppuration on the distal root surface of the right L2M adjacent to the mesio-angular impacted right L3M that was extracted three months ago (B, C, D). Radiographs showed incomplete healing and poor bone fill in the extraction socket of the L3M, as well as vertical bone loss distal to the L2M. Guided Tissue Regeneration with bone graft technique was conducted under local anesthesia. The procedure was carried out using 4.5x magnifying dental loupes with light. A full thickness muco-periosteal flap was raised around the distal side of L2M. Chronically inflamed tissue was removed using piezo and surgical ultrasonic tips. Debridement of the distal root surface of L2M was performed using a combination of ultrasonic tips and 13/14 Gracey curettes. A bone scraper was used to harvest bone from the external oblique ridge. A mixture of autogenous bone chips and Bio-Oss particles (Geistlich Biomaterials) was used to fill the intra-bony defects distal to L2M. Double layer of Bio-Gide membrane (Geistlich Biomaterials) was used to cover the bony mixture. Vicryl sutures 5-0 (Ethicon GmbH, Germany) were used to secure the membrane. Prolene 5-0 sutures (Ethicon GmbH, Germany) were used to achieve primary closure. Postoperative and oral hygiene instructions were given. A period of five months was allowed for healing before reviewing the case. Upon review, the periodontal pocket depth was reduced to 3mm, complete absence of bleeding upon probing and suppuration with bone fill on the distal root surface of L2M (E, F, G). Patient was informed to attend regular review appointments for monitoring and maintenance.

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