

# Interdisciplinary management of an interdental gingival recession in a periodontal complex case

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## Clinical evaluation/ Diagnosis

In 2013 a young patient (GC) came to ask for a consultation about his gingival conditions. He complained about recurrent swelling on the left incisors, about their migration noticed in less than 2 years. He also referred gingival bleeding and halitosis. The patient had a panoramic radiography and had already consulted the general dentist. He was 28 years old, healthy, no smoker, with a familiarity for periodontal disease and worried about the fate of his teeth. At the clinical examination, an abscess was draining from the sulcus of teeth 21 and 22. Plaque was present but not abundant, with very little calculus. The dentition was complete. At the periodontal examination, some very deep pockets were shown. Bleeding on probing was also present. Tooth 2.2 was affected by a grade I mobility. Diagnosis was Localized Aggressive Periodontitis. The patient was also affected by an Angle Class I malocclusion, with a canine crossbite on the left side, and by a periapical lesion on tooth 2.5.

## Treatment goals

The main objective of the treatment was the resolution of recurrent periodontal infection. Goals of the first phase of treatment were also the resolution of the periapical lesion and the establishment of clinically stable periodontal parameters, with pocket closure. At the first periodontal reevaluation, the regeneration of the infrabony defects was planned on site 1.6, 35-36 and 45-46. Periodontal wound healing was monitored for up to 12 months, with a regular supportive periodontal therapy before enrolling the patient to an orthodontic treatment to solve the crossbite on the left side and the loss of occlusal lateral guidance. The aim of the orthodontic treatment was to reach a balanced occlusion with no damage to the already reduced attachment. The patient also expressed the willing for a more pleasant smile. Aim of the surgery in the frontal upper region was minimizing the recession on 2.1 (type RT3) and to regenerate the infrabony component of the defect.

## Description of clinical/surgical procedures

The patient was informed about the nature, the etiology and the consequences of periodontal disease. He was compliant and willing to collaborate. New and more effective oral hygiene instructions were provided to the patient and a supra and subgingival debridement was performed in 4 appointments in 2 weeks, under local anesthesia if needed, using both mechanical and manual instrumentation. Endodontic retreatment of tooth 2.5 was performed. The first phase of the treatment was concluded with a periodontal reevaluation a 60 days from the active therapy. Periodontal surgeries for the regeneration of the infrabony defects on teeth 46-45, 36 an 16 were performed. EDTA and amelogenins were placed on the debrided roots, according to the established protocols. Where the papilla was not sustained by the bone peak, a small amount of bovine bone substitute was added in the defect.

## Clinical outcomes

The patient was enrolled in a post-op supportive therapy. The orthodontic treatment began after the check of periodontal parameters during a 12 months period. The orthodontic treatment was performed accordingly to the periodontal condition of the patient, with an accurate control of biomechanics, with a bracketless appliance, in order to reduce plaque accumulation and facilitate oral hygiene. At the end of retention phase, a surgery to regenerate the defect between 21 and 22 was performed with subepithelial connective tissue graft harvested from the palate and a coronally advanced flap to cover the regenerating site. Amelogenins were applied in the recipient created by the connective graft on the vestibular side. The wound healing was uneventful. The filling of the defect was highly satisfying and the papilla was almost completely restored. The follow-up presented is at 14 months from the surgical procedures and the patient is still attending the SPT program.