DOUBLE LATERALLY POSITIONED FLAP IN THE TREATMENT OF TWO CONTIGUOUS GINGIVAL RECESSIONS IN THE LOWER INCISORS

Coutinho Alves C.*; DDS, PhD , Carvalho V.; DDS

GINGIVAL RECESSION

✓ It is defined as the apical location of the gingival margin in relation to the cementoenamel junction (JEC) of a tooth which causes root exposure in the oral cavity. According to Miller (Fig.1):

- **Class I**: it does not reach the mucogingival line and there is no interproximal bone loss
-**Class II**: it reaches the mucogingival line and there is no interproximal bone loss
-**Class III**: it reaches the mucogingival line and there is interproximal bone loss
-**Class IV**: it reaches the mucogingival line and there is interproximal bone loss reaching an apical level to the marginal extent of the recession

LATERALLY POSITIONED FLAP

✓ Method of choice whenever the keratinized gingiva adjacent to the defect is adequate in length and thickness and there is not enough keratinized gingiva apical to the recession to be coronal repositioned

ADVANTAGES
-Simplicity of the technique
-Good pedicle vascularization
-Good aesthetic harmony

DISADVANTAGENS
-Amount of keratinized adhered gingiva is a mandatory prerequisite
-Recession is possible in the original rotation zone

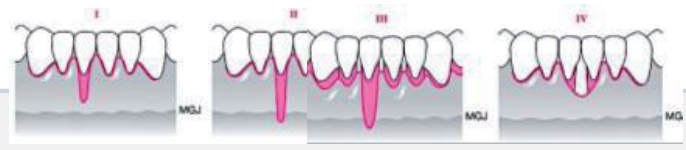

Fig. 1: Gingival Recession Classification (Miller, 1985)

CLINICAL CASE

✓ A 23-year-old female presented two Miller's class III gingival recessions in teeth 31 and 41(Figs. 2 e 3).
✓ According to the clinical picture, and in order to resolve the aforementioned situation in a single surgical time, the following treatment plan was established: *Double laterally positioned flap + Enamel matrix proteins derivatives + Connective tissue graft.*

CLINICAL PROTOCOL

1º. Infiltrative anesthesia in the area to be covered
2º. Preparation of the exposed root surface:
• Piezo ultrasonic
3º. Two partial thickness flaps were made. The epithelial tissue collar around the gingival defects was removed with exposure of a margin of connective tissue in the receptor region.
4º. Preparation of the exposed root surface:
• Gracey curettes
• Root smoothing drill
5º. Root conditioning with 24% ethylenediamino tetraacetic acid (EDTA) (PrefGel®, Straumann - 2 minutes; Fig.4)
6º. Washing with saline solution (2 minutes)
7º. Palate anesthesia and connective tissue graft collection (Fig.5)
8º. Application of enamel matrix proteins derivatives (Emdogain®; Fig.6)
9º. Suture of the connective tissue graft in the receptor region with absorbable 5/0 thread
10º. Passive rotation of both flaps on the previously exposed root surface
11º. Suture with 6/0 thread (Fig.7)
12º. Suture removal after 12 days (Fig.8)
13º. Control 1 month (Fig.9), 2 months (Fig. 10) e 15 months (Fig.11)

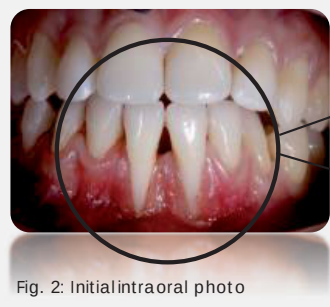

Fig. 2: Initial intraoral photo

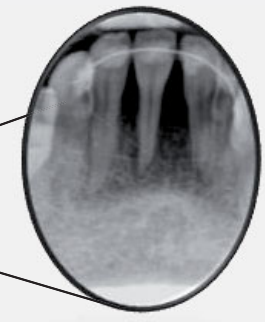

Fig. 3: Initial radiographic examination

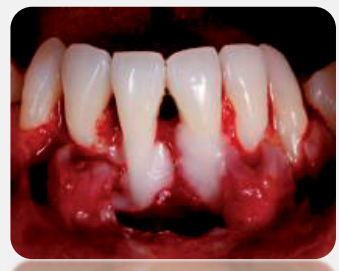

Fig. 4: Double partial thickness flap + Application of PrefGel®.

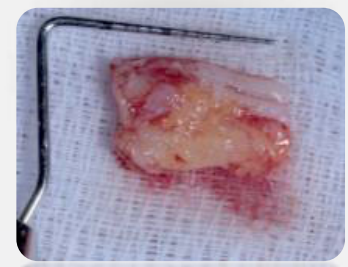

Fig.5: Connective tissue graft collection

Fig. 6: Application of Emdogain®.

Fig. 7: Immediate postoperative – suture Gore-tex® 6-0

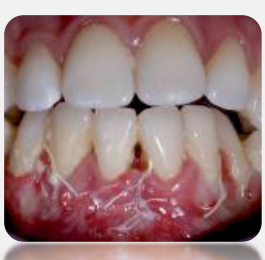

Fig. 8:Postoperative: Suture removal 12 days after

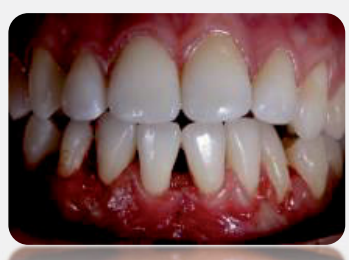

Fig. 9: Control 1 month

Fig. 10: Control 2 months

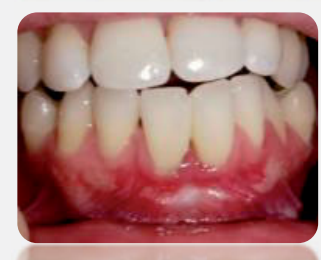

Fig. 11: Control 15 months (photo sent by the patient in isolation by Covid-19)

DISCUSSION

✓ Different degrees of complexity are emerging in the treatment of gingival recessions. The dentist must be able to interconnect techniques and modifications in order to establish the most appropriate treatment plan for each situation.
✓ Histological studies demonstrate that the use of the laterally positioned flap results in the formation of a new insertion with the formation of crevicular epithelium, long union epithelium, with restoration of the anatomical characteristics of the soft tissue.
✓ The combination of this technique with enamel matrix proteins derivatives is associated with greater coverage and greater formation of keratinized tissue.
✓ The combination with a connective tissue graft allows a greater root coverage, an increase of the thickness of the gingival biotype and a lower probability of recession at the flap elevation site.

CONCLUSION

✓ The double laterally positioned flap was effective in the treatment of two contiguous gingival recessions in a single surgical procedure.

De Angelis N, Yumang C, Benedicenti S. Efficacy of the lateral advanced flap in root-coverage procedures for mandibular central incisors: a 5-year clinical study. The International journal of periodontics & restorative dentistry. 2015;35(1):e9-e13; Albandar JM ,Kingman A. Gingival recession, gingival bleeding, and dental calculus in adults 30 years of age and older in the United States, 1988-1994. Journal of periodontology. 1999;70(1):30-43; Singh J, Bharti V. The effect of laterally positioned flap-revised technique and 24% ethylenediaminetetraacetic acid root conditioning on root coverage: A case report. Saudi Dent J. 204; 26(3):132–138. doi:10.1016/j.sdentj.2014.03.007; Miller PD, Jr. A classification of marginal tissue recession. The International journal of periodontics & restorative dentistry. 1985;5(2):8-13; Saha S, Bateman GJ. Mucogingival grafting procedures-an update. Dental update. 2008;35(8):561-2, 5-8; Chambrone L, Sukekava F, Araujo MG, Pustiglioni FE, Chambrone LA, Lima LA. Root coverage procedures for the treatment of localised recession-type defects. The Cochrane database of systematic reviews. 2009(2):Cd007161; Roccuzzo M , Bunino M , Needleman I , Sanz M . Periodontal plastic surgery for treatment of localized gingival recessions: a systematic review. Journal of clinical periodontology. 2002;29 Suppl 3:178-94; discussion 95-6; Grupe HE, Warren RF. Repair of Gingival Defects by a Sliding Flap Operation. J Periodontol. 1956;27:92-95; Chambrone L, Chambrone LA, Tatakis DN, Costa Hanemann JA, Shibli JA, Nevins M. Wound Healing of the Laterally Positioned Flap: A Histomorphometric Assessment. The International journal of periodontics & restorative dentistry. 2015;35(6):785-92; Sedon CL, Breault LG, Covington LL, Bishop BG. The subepithelial connective tissue graft: part I. Patient selection and surgical techniques. J Contemp Dent Pract. 2005;6(1):146-62; Dersot JM, Moubarak N. Decision making in Root Coverage Surgical Techniques. Dental News.2005;12(1):8-12; Lee CT, Chang PC, Touchan N, Royzman D. Root coverage with a modified laterally positioned flap combined with a subepithelial connective tissue graft in advanced recession. J Periodontal Implant Sci. 2014;44(6):300- 306.