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CLINICAL RESEARCH – SURGERY

Collagen matrix (Mucoderm®) as an alternative for the treatment of gingival recessions

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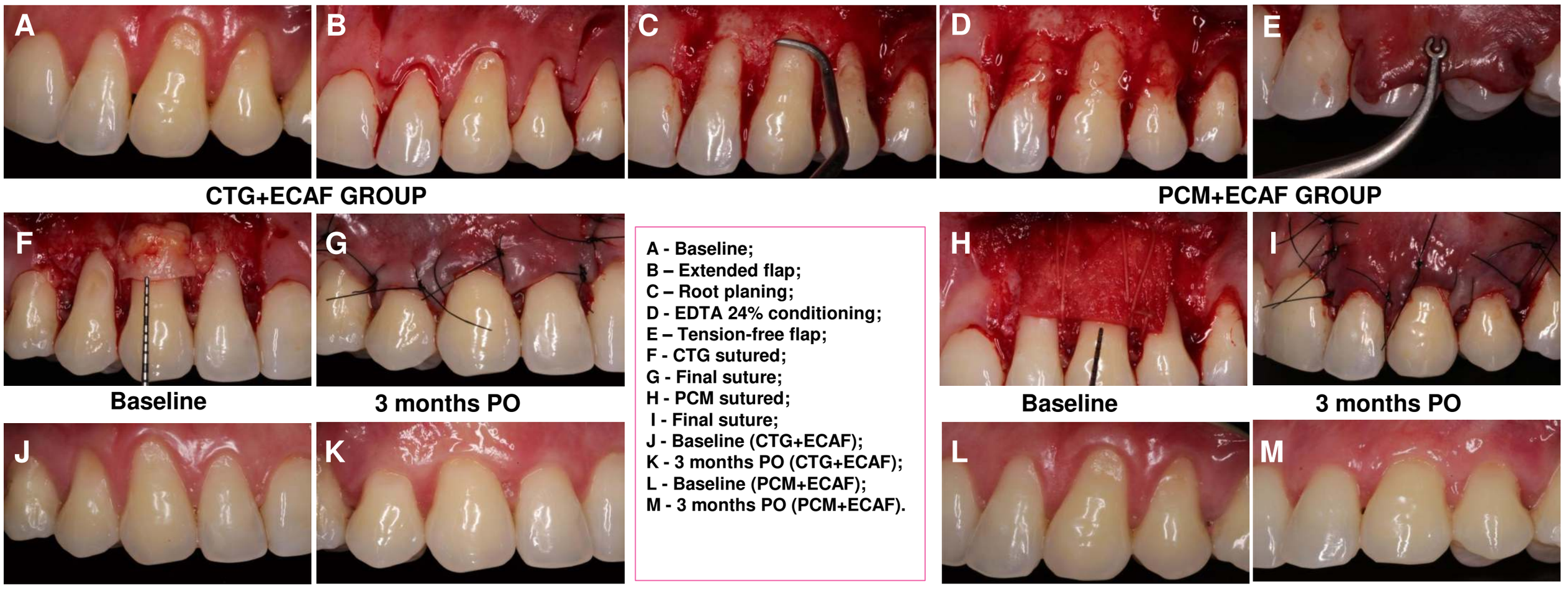
Surgical procedures (Control)

Surgical procedures (Mucoderm)



A - Baseline;
B – Extended flap;
C – Root planing;
D - EDTA 24% conditioning;
E – Tension-free flap;
F - CTG sutured;
G - Final suture;
H - PCM sutured;
I - Final suture;
J - Baseline (CTG+ECAF);
K - 3 months PO (CTG+ECAF);
L - Baseline (PCM+ECAF);
M - 3 months PO (PCM+ECAF).

Results

The PCM group showed a significant reduction in recession height average of 2.07±1,05mm ($p<0,05$). The average reduction in the CTG group was 2.41±1.16mm ($p<0,05$). The average amount of root coverage was not different between PCM (62%) and CTG (75%) groups ($p>0,05$). KTH gain was 1.08±1,04mm in PCM group and 0.98±0.71mm in CTG control ($p>0.05$). KTT gain was 0.35±0.38mm in the PCM group and 0.49±0.36mm in the CTG group ($p>0.05$).

Background and Aim

Coronally advanced flap plus connective tissue graft (CTG) is the gold standard therapy for root coverage. The bioabsorbable porcine collagen matrix (PCM) has been widely used in periodontal and mucogingival surgery as a substitute for CTG and has achieved similar results. The PCM has the advantage of availability overcoming the limitations of donor site in autograft. The aim of this study is to investigate the use of PCM (Mucoderm) in root coverage procedures combined with extended coronally positioned flap (ECAF) in comparison to the CTG associated with the ECAF.

Conclusion

In this preliminary short time evaluation, both treatments showed a significant reduction in recession height. Considering no significant differences were observed between CTG and PCM groups for recessions height, width and thickness of keratinized tissue, it can be speculated that Mucoderm can be used as an alternative to CTG for the treatment of gingival recessions.

Methods and Materials

Sixteen adult patients, non-smokers, presenting bilateral Class I or II Miller gingival recession were selected. Clinical parameters, probing depth, clinical attachment level, recession height and keratinized tissue height (KTH) and thickness (KTT) were recorded at baseline and 3 months after the surgical procedures by a blinded examiner.

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