# Effects of tetracycline HCl conditioning and fibrin-fibronectin system application in the treatment of buccal gingival recession with guided tissue regeneration.

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Publication Date: 1995

## Abstract:

A split-mouth clinical trial was designed to evaluate the effect of treating deep wide buccal gingival recession with guided tissue regeneration using expanded polytetrafluoroethylene membrane combined with tetracycline HCl (TTC) root conditioning and fibrin-fibronectin sealing system (FFSS) application. Eight patients, aged 25 to 57 years, each presenting two similar mucogingival defects, were selected. The two bilateral recessions were randomly assigned in each patient to either test or control treatment procedure. After initial therapy, each patient was examined for assessment of plaque, gingivitis, recession depth (RD), probing depth (PD), probing attachment level (PAL), and keratinized tissue width (KT). The test procedure included the elevation of mucoperiosteal flap at the buccal aspect of the alveolar process. The root was debrided and demineralized with 100 mg/ml TTC solution for 4 minutes using a burnishing technique with cotton pellets. A teflon membrane was secured and a film of FFSS was applied between the membrane and the root surface. The buccal flap was sutured to completely submerge the membrane. Control treatment included gingival flap surgery with barrier membrane alone. After 6 weeks, the membrane was removed. Healing was evaluated 6 months after surgery. Both test and control procedures resulted in highly significant recession reduction (3.0 mm +/- 1.1 and 2.6 mm +/- 1.2, respectively) and attachment gain (3.6 mm +/- 1.7 and 2.6 mm +/- 1.1, respectively). Mean root coverage was of 67% in the TTC + FFSS treated sites and 60% in membrane-only treated sites. However, only treatment with TTC + FFSS significantly reduced PD and increased KT ($P < 0.05$). When treatments were compared, changes in

PD and PAL were significantly greater in TTC + FFSS treated sites ($P < 0.05$).(ABSTRACT TRUNCATED AT 250 WORDS)