The modified coronally advanced tunnel combined with an enamel matrix derivative and subepithelial connective tissue graft for the treatment of isolated mandibular Miller Class I and II gingival recessions: a report of 16 cases.

Abstract:
To clinically evaluate the healing of mandibular Miller Class I and II isolated gingival recessions treated with the modified coronally advanced tunnel (MCAT) in conjunction with an enamel matrix derivative (EMD) and subepithelial connective tissue graft (SCTG). Sixteen healthy patients (13 women and 3 men) exhibiting one isolated mandibular Miller Class I and II gingival recessions of a depth of $\geq 3$ mm, were consecutively treated with the MCAT in conjunction with EMD and SCTG. Treatment outcomes were assessed at baseline and at 12 months postoperatively. The primary outcome variable was complete root coverage (CRC) (eg, 100% root coverage). Postoperative pain and discomfort were low and no complications such as postoperative bleeding, allergic reactions, abscesses, or loss of SCTG were observed. At 12 months, statistically significant ($P<.0001$) root coverage was obtained in all 16 defects. CRC was measured in 12 out of the 16 cases (75%) while in the remaining 4 defects root coverage amounted to 90% (in two cases) and 80% (in two cases), respectively. Mean root coverage was 96.25%. Mean keratinized tissue width increased from $1.98 \pm 0.8$ mm at baseline to $2.5 \pm 0.9$ mm ($P<.0001$) at 12 months,
while mean probing depth did not show any statistically significant changes (ie, 1.9 ± 0.3 mm at baseline vs 1.8 ± 0.2 mm at 12 months). Within their limits, the present results indicate that the described treatment approach may lead to predictable root coverage of isolated mandibular Miller Class I and II gingival recessions.