

R-6. Effects of the guided tissue regeneration using polylactic/polyglycolic copolymer membrane in the furcation involvement

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The purpose of the present study was to evaluate the clinical efficacy of guided tissue regeneration(GTR) using resorbable polylactic/polyglycolic copolymer(PLA/PGA) membrane in mandibular class II furcation involvement and to compare it to the clinical efficacy of only flap operation. Both procedures were conducted in 5 patients with class II furcation involvements.

After 6 months of follow up, the probing pocket depth, clincial attachment level, bone probing depth, and radiographic changes were compared, and the following results were obtained:

1. GTR using PLA/PGA demonstrated a statistically significant reduction in probing pocket depth and bone probing depth, and the control group demonstrated a statistically significant reduction in bone probing depth.
2. The comparison between the experimental and control group failed to demonstrate statistically significant difference in clinical improvement, but more reduction in probing pocket depth and bone probing depth were observed in the experimental group. The probing pocket depth and the bone probing depth were $2.2 \pm 1.6\text{mm}$ and $2.4 \pm 1.1\text{mm}$ respectively in the control group, while they were $2.4 \pm 1.3\text{mm}$ and $3.0 \pm 1.2\text{mm}$ respectively in the experimental group.
3. Radiographic change was not detectable for the both groups during the 6 months of follow up.
4. Sites with deeper probing pocket depth at baseline examination showed greater amount of clinical improvement in both groups. Other clinical factors didn't have any significant effect on the treatment results.

It is concluded that though there are some limitations, PLA/PGA membrane is effective for the treatment of mandibular class II furcation involvement.