

Guided tissue regeneration therapy for severe periodontal disorder in 3 dogs: Clinical and radiographic findings

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Introduction: There is a limited amount of clinical evidence available regarding the results of guided tissue regeneration (GTR) in dogs. The objective of this retrospective study was to assess the results following GTR, the long-term stability of these results, and the survival rate of severe periodontal defects that were treated by GTR.

Materials and methods: 3 dogs aged 6-12 years (9.00 ± 1.73 , mean \pm SEM) were diagnosed as having severe periodontal disorder with single or multiple alveolar bone defects (ABD). A total 7 sites or teeth treated by GTR using Enamel matrix derivative, Emdogain®) or Geistlich Bio-Oss® or combination of both. Periodic monitoring of treated sites included probing depth (PD) and detecting defect filling rate radiographic examination. The pretreatment and postoperative findings from 0-12 months were subjected to statistical analysis.

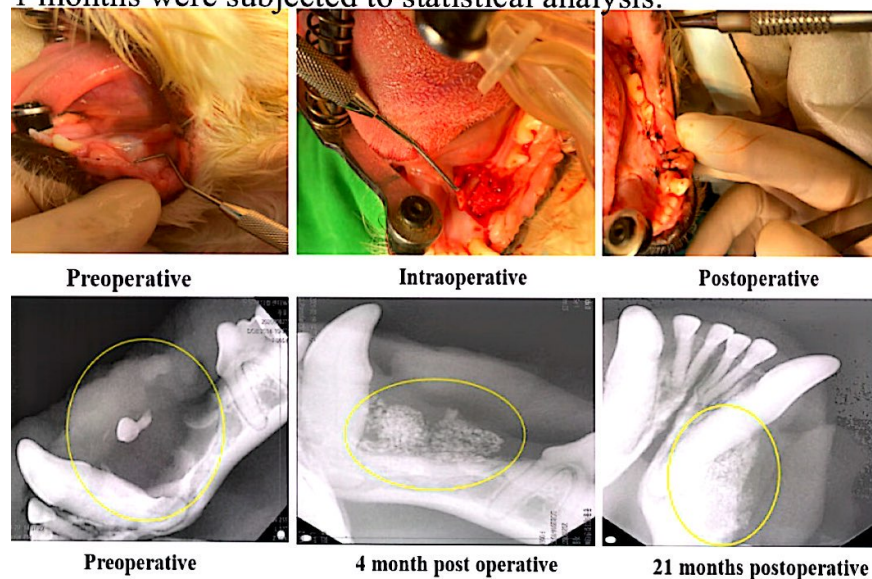


Fig. Representative images of clinical diagnosis, surgical procedure and radiographic long-term postoperative follow-up .

Results: The PD and bone growth rate values decreased significantly improved following GTR therapy. The mean pretreatment PD was 4.45 ± 0.86 mm and the probing depth after three months and 21 month post-treatment were significantly decreased 71.67% (1.40 ± 0.15 mm) and 77.27% (1.12 ± 0.03 mm), respectively. Importantly, the mean pretreatment ABD was 4.45 ± 0.86 mm and the alveolar bone defect filling rate after three months and 21 month post-treatment were significantly increased 79.30% (ABD, 1.18 ± 0.60 mm) and 90.43% (ABD 0.53 ± 0.25 mm), respectively. The survival rates of the treated teeth were 100% (7/7).

Conclusion: Surgical treatment of severe periodontal disorder dogs by GTR resulted expected successful clinical results at 21-months post-treatment. Therefore, GTR is recommended to prevent dental extraction or loss.