PC-II-5. Periodontal Repair on Intrabony Defects treated with Anorganic Bovine-derived Xeonograft

Young-Taek Kim[1*], Gyung-Joon Chae[1], Ui-Won Jung[1], Yong-Kun Lee[2], Kyoo-Sung Cho[1], Jung-Kiu Chai[1], Chong-Kwan Kim[1], Seong-Ho Choi[1]

1 Department of Periodontology, College of dentistry, Yonsei University

1 Research Institute for Periodontal Regeneration, College of dentistry, Yonsei University

2 Department and Research Institute of Dental Biomaterials and Bioengineering, Yonsei University

Background

The ultimate goal of periodontal treatment is to regenerate the lost periodontal apparatus. Many studies were performed in developing an ideal bone substitute. Anorganic bovine-derived xenograft is one of the bone substitues, which were studied and have been shown successful for decades.

The aim of this study is to evaluate the effect anorganic bovine-derived xenograft.

Materials and methods

Total of 20 patients, with 10 patients receiving only modified widman flap, and the other 10 receiving anorganic bovine-derived xenograft and flap surgery, were included in the study. Clinical parameters were recorded before surgery and after 6 months.

Results

1. The test group treated with anorganic bovine-derived xenograft showed reduction in periodontal pocket depth and clinical attachment level with statistically significance($p<0.001$) after 6 months. The control group treated with only modified Widman flap showed reduction only in periodontal pocket depth with statistically significance($p<0.001$) after 6 months.
2. Although periodontal probing depth change during 6 months did notshow any significant differences between the test group and the control group, clinical attachment level gain and recession change showed significant differences between the two groups($p<0.05$).

Conclusion

On the basis of these results, anorganic bovine-derived xenograft improves probing depth and clinical attachment level in periodontal intrabony defects. Anorganic bovine-derived xenograft could be a predictable bone substitute in clinical use.