

C465423 : MAJOR PERIODONTICS

KEY WORD: CALCIUM CARBONATE / BONE TRANSPLANTATION/ PERIODONTAL DEFECT/
SURGERY

SOOKJIT YANAJAREE : COMPARISON OF DEMINERALIZED FREEZE-DRIED BONE
AND POROUS CALCIUM CARBONATE IN THE TREATMENT OF PERIODONTAL OSSEOUS
DEFECTS. THESIS ADVISOR : ASS. PROF. NAULCHAVEE HONGPRASONG, M.D.S.
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PERIODONTICS. 105 pp. ISBN 974-583-502-1

The study was conducted to clinically compare the efficacy of Demineralized freeze-dried bone allografts (DFDB) and Porous calcium carbonate alloplasts (PCC). Eleven pairs of vertical bony defects (2 and 3 walls) in ten patients presenting with adult periodontitis, which pocket depth 6-8 mm., ranging in age 30-56 years (mean age 43), without significant systemic disorder were participated in this investigation. One defect of each pair was implanted with DFDB, the other with PCC. Each patient received the complete hygienic phase treatment before the bone graft operation was performed. Probing pocket depth, attachment levels, gingival recession and standardized radiographs were recorded in the post hygienic phase of therapy. All measurements were repeated at the time of a 3 and 6 month. Only two patients were surgically reentered at 6 month. A mean decrease in probing depths of 1.91 mm. (30.46 %) for DFDB versus 1.82 mm. (29.87 %) for PCC. and a mean clinical attachment gain of 1.27 mm. (20.26 %) for DFDB versus 1.00 mm. (16.67 %) for PCC. which were not statistically significant difference ($p < 0.01$). The data and clinical finding suggested that both treatment modalities reduced pocket depth and demonstrated a gain in clinical attachment levels. However, DFDB may have some enhanced reparative potential in bone induction when compared to PCC in the long term treatment of vertical bony defects.