

Clinical and Radiographic Evaluation of Periodontal Intra-Osseous Defects Treated With Platelet Rich Plasma and Demineralized Freeze-Dried Bone Allograft

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The purpose of this study was to assess the effectiveness of Platelet Rich Plasma (PRP) versus Demineralized Freeze-Dried Bone Allograft (DFDBA) alone or in a combination of PRP/DFDBA in treating intra-osseous periodontal defects.

Patient Selection: The present study was conducted on fifteen systemically healthy patients (8 females and 7 males, with age range (25-45 years)). Each patient had at least three periodontal defects, of 2 or 3 intra-osseous wall defects not involving the same interproximal space. The 45 defects were divided into three groups: Group I: 15 defects treated with PRP alone, Group II: 15 defects treated with PRP/DFDBA combination. Group III: 15 defects treated with DFDBA alone. **Results:** Our results showed that, all three treatment modalities resulted in significant reduction in probing pocket depth when baseline parameters were compared to 6 months postoperatively, a significant reduction in Clinical attachment level, a significant increase in bone density 6 months postoperatively, as well as a significant reduction in the depth of the bony defect at 6 months period.

To conclude, we suggest that when PRP is combined with allograft, it would give some benefit, as PRP seems to improve the rate of bone formation and the quality of bone formed. PRP gel also seems to improve the handling characteristics of the graft. However, if PRP is applied solely it may give parallel results over a longer time period.