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Clinical Evaluation of Immediate Implants Using Different Types of Bone Augmentation Materials

Principal Worker

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Unit

AFMC

Objectives

To evaluate clinically and radiographically the success of immediate implant placement at the time of extraction with two different graft materials i.e. Demineralised Freeze Dried Bone and Vs Modified Hydroxyapatite.

Method

A total of 30 patient's of either sex in the age group of 18-38 years, each having at least one tooth indicated for extraction (either maxillary or mandibular anterior teeth) were selected and randomly divided in to two groups depending on the graft used. 30 Implants were placed into fresh extraction sockets during this study. Two types of graft materials namely G-BONE (Modified HYDROXYAPATITE) for Group A and DEMBONE (Demineralised Freeze-Dried Bone) for Group B were used to close the gap between implant and wall of the socket. After implant placement all implants were evaluated clinically and radiographically at baseline, 3 months, 6 months, 9 months and 12 months. All clinical and radiographic parameters were subjected to statistical analysis. Intra group comparisons were made with Paired't' test and intergroup comparisons with Unpaired't' test.

Results

During the 1-year interval, no implant was lost and the mean bone level at the implants was maintained or even improved. Both the graft materials (G-BONE and DEMBONE) were equally successful in closing the gap between Implant and wall of the socket.

Recommendations

Immediate restoration of single-tooth implants placed in fresh extraction sockets could be considered a valuable option to replace a missing tooth. The graft materials used in both groups have been found to be equally effective. Either or both of them may be considered for introduction in PVMS.