ABSTRACT

PURPOSE: The aim of the study is to assess and evaluate the outcome of Alveolar sockets by placing either Bio-Oss or Bio-Oss with Platelet rich fibrin immediately following extraction; followed by Endossous Dental Implant placement as a delayed procedure.

MATERIALS AND METHOD: This is a prospective study including 16 preservation sites in 14 patients undergoing extraction immediately followed by placement of Bio-Oss alone in 8 sites & Bio-Oss mixed with PRF in 8 sites and the patients were between the age group of 18-50 years (adults). The first group of patients (Group A) received Bio-Oss which is a bone graft and the second group (Group B) received Bio-Oss mixed with Platelet Rich Fibrin (5ml patients own blood, centrifuged at 3000 rpm for 10 min) as the bone preservation agent. The buccolingual width, the clinical height, the radiological vertical height (long cone paralleling angle technique which is a measurement from the adjacent tooth’s root tip/CEJ to the visible outer cortical lining) and soft tissue status were assessed immediately following extraction (Stage 1), 10 days after during suture removal & prior to implant placement after approx. 3 months (Stage 2). The implants were placed between 3-10 months and the stability and survival rate of the implants were measured. Finally, after evidence of successful integration, the Implants were loaded (Stage 3).
RESULTS: Both the groups A & B were evenly distributed with respect to age, gender, site, periodontal status. An overall reduction of the clinical bucco-palatal width, clinical height and radiographic height were found in all 3 stages of evaluation but was not significant with respect to both the groups. Both Group A and Group B show similar socket dimensional changes.

CONCLUSION:

Within the limitations of the study, it can be inferred that the use of PRF along with bone grafts for socket preservation improves handling properties & soft tissue healing but with respect to maintaining the socket dimensions there is no clear statistical evidence to justify its use along with bone grafts.

Key words: Bio-Oss, Platelet-Rich fibrin, Socket preservation, Bucco-lingual width, Radiographic height.