

Abstract

Pre-Extractive Inter-Radicular Implant Bed Preparation versus Conventional Post-Extractive Inter-Radicular Implant Bed Preparation in Mandibular Molars Randomized Clinical Trial

DR. MOHAMED ABDEL WAHID* BDS, MSc ORAL IMPLANTOLOGY, (Cairo university), Egypt

Under Supervision Of

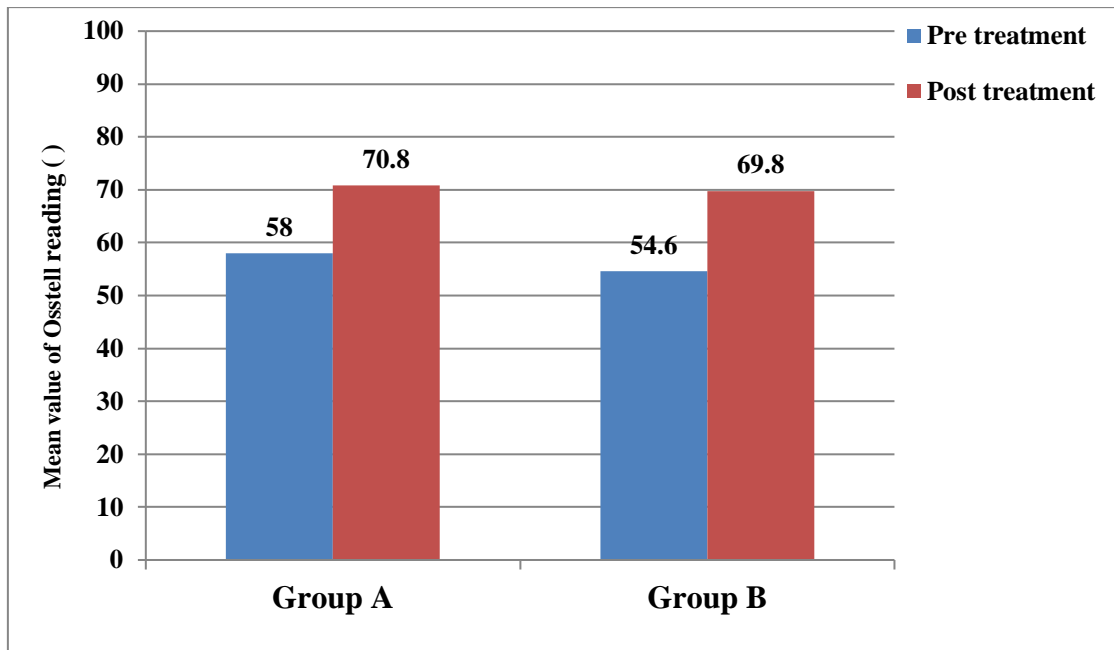
PROF. AMR ELKHADEM PROFESSOR OF REMOVABLE PROSTHODONTICS, (Cairo university), Egypt

PROF. MOHAMED ATEF ASSOCIATE PROFESSOR ORAL AND MAXILLOFACIAL SURGERY, (Cairo university), Egypt

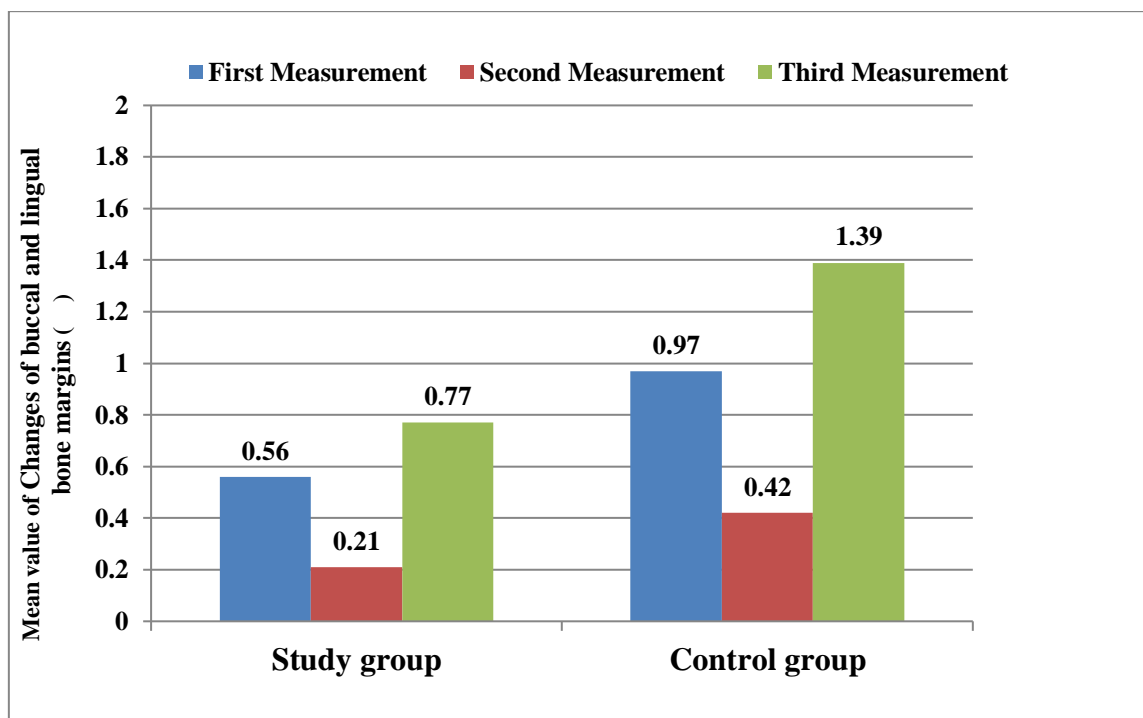
Abstract:

Statement of the problem: Placing implants in an ideal position without compromising their primary stability represents a critical issue. The initial osteotomy must be directed into the medial portion of the alveolus while engaging the interradicular septum of the extraction socket. The drill may continuously slip, leading to inaccurate site preparation, and consequently to a deficient implant insertion. The implant is often placed directly into the extraction socket of the tooth to replace. The Purpose of this study: Was to assess the implant stability and amount of crestal bone loss in immediate implant placement in mandibular molars by using pre-extractive inter-radicular implant bed preparation versus conventional post-extractive inter-radicular implant bed preparation. Materials and Methods: Twenty patients (5 males, 15 females), suffering from badly decayed vital or non-vital posterior mandibular molar teeth were selected and randomly divided into 2 groups, 10 per group; the first group received Pre-extractive interradicular implant bed preparation while the second group received Conventional post-extractive interradicular implant bed preparation. All surgeries were performed by the same surgeon. Findings: there was significant difference on Osstell Reading in immediate implant placement between both groups. There was statistical difference in the mean value of Changes of (Buccal and Mesial Bone Margins) and (Mesial and Distal Bone Margins) of the Second Measurement that was between 6 months and 1 year after implant placement between both groups. Conclusions: Implants that placed by pre-extractive inter-radicular implant bed preparation had a high primary stability than that placed by post-extractive inter-radicular implant bed preparation. Recommendations: Using the modified pre-extractive inter-radicular implant bed preparation which could provide satisfactory primary implant stability with ideal implant positioning and enhanced implant success.

Graphs:

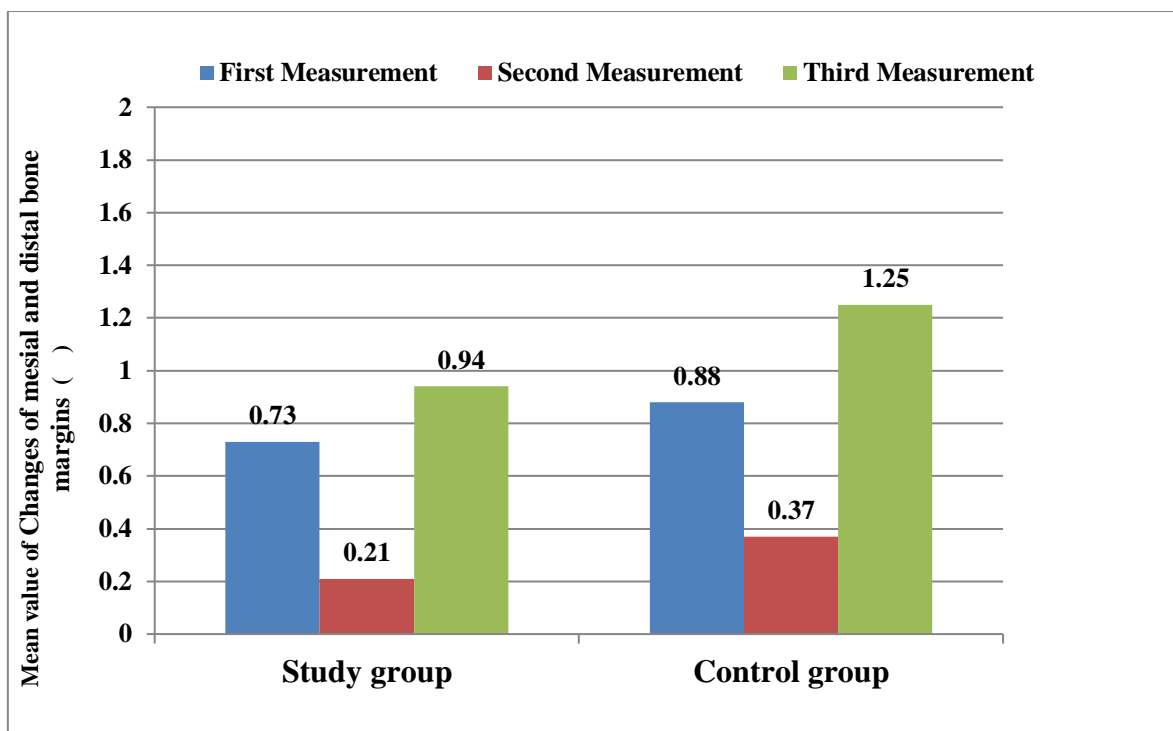


Graph (1): Mean \pm SD and p values of Osstell reading immediate and post six months' post-operative implant placement at both groups.



First measurement: between immediately and 6 months after implant placement;
Second measurement: between 6 months and 1 year after implant placement;
Third measurement: between immediately and 1 year after implant placement.

Graph (2): Descriptive statistics and 2x3 mixed design MANOVA for Changes of buccal and lingual bone margins at different measuring periods at both groups.



First measurement: between immediately and 6 months after implant placement;
Second measurement: between 6 months and 1 year after implant placement;
Third measurement: between immediately and 1 year after implant placement.

Graph (3): Descriptive statistics and 2×3 mixed design MANOVA for Changes of mesial and distal bone margins at different measuring periods at both groups.

Recent Publications:

1. Fugazzotto PA. Implant Placement at the Time of Mandibular Molar Extraction: Description of Technique and Preliminary Results of 341 Cases. *J Periodontol.* 2008;79(4):737-747. doi:10.1902/jop.2008.070293.
2. Atieh MA, Payne AGT, Duncan WJ, de Silva RK, Cullinan MP. Immediate placement or immediate restoration/loading of single implants for molar tooth replacement: a systematic review and meta-analysis. *Int J Oral Maxillofac Implants.* 2010;25(2):401-415.
3. Atieh MA, Alsabeeha NHM, Duncan WJ. Immediate single implant restorations in mandibular molar extraction sockets: A controlled clinical trial. *Clin Oral Implants Res.* 2013;24(5):484-496. doi:10.1111/j.1600-0501.2011.02415.
4. Scarano A. Traditional Postextractive Implant Site Preparation Compared with Pre-extractive Interradicular Implant Bed Preparation in the Mandibular Molar Region, Using an Ultrasonic Device: A Randomized Pilot Study. *Int J Oral Maxillofac Implants.* 2017;32(3):655-660. doi:10.11607/jomi.5342.
5. Rebele SF, Zuhr O, Hürzeler MB. Pre-extractive Interradicular Implant Bed Preparation: Case Presentations of a Novel Approach to Immediate Implant Placement at Multirooted Molar Sites. *Int J Periodontics Restor Dent.* 2013;33(1):88-95. doi:10.11607/prd.1444.



Biography:

Delivering Quality Healthcare Services Is a Passion and A Motivator That I Seek to Be Part of and Involved in Daily. An Aspiration to Participate in Communities Which Aim to Provide Empathetic Care and Service That Is Essential to Those That Rely On Public Health. Improving Health Status Is My Job Through Prevention of Illness and Promotion of Healthy, Lifestyles and to Consistently Improve the Healthcare Delivery System by Focusing On Access, Efficiency, Quality and Sustainability. Goal-Driven Healthcare Administration Professional Well-Versed in Recruiting, Training and Managing Employees to Provide Exceptional Resident Services. Highly Organized and Hardworking with Excellent Planning and Program Management Skills. Healthcare Administrator with Proven Ability to Deliver Exemplary Level of Healthcare Service Delivery to Patients. Coordinate Admission and Discharge of Patients. Plan and Implement Strategies for Developing Improved Health Care Management. Proven Problem Solver and Excellent Communicator. Strong Organizational Skills, Superb Understanding of Data Collection and Performance Metrics. Recognized for Staff Development Leading to High Performing Teams.