EVALUATION OF A MICRO-THREAD IMPLANT VERSUS A NON MICRO-THREADED IMPLANT PLACED IN IMMEDIATE POST EXTRACTION SOCKETS.

By

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ABSTRACT

Background and Objectives: Immediate implant placement into fresh extraction sites is considered a predictable and acceptable procedure. It has several advantages such as; reduction in the overall treatment time with fewer surgical procedures, lower rate of morbidity and prevention of initial bone loss. The design of the implant influences the implant stability and long term success. Thus the aim of the study was to evaluate 1. Survival and success of micro-threaded and non-micro-threaded implant. 2. Changes in the Implant Stability Quotient over 12 months. 3. Stability of marginal bone levels between two different implants.

Materials & Methodology: A total of 20 patients were enrolled in the study. Once recruited all the patients underwent phase-1 periodontal therapy. The patients were then randomly divided into either of the two groups mentioned Group 1: immediate post extraction implant placement with implant designed with micro-threads: 10 nos. Group 2: immediate post extraction implant placement with implant designed without micro-threads: 10 nos.

Results: Seventeen of the 20 implants were clinically stable, 3 implants did not integrate and were considered failure, of which 1 was non- microthreaded and 2 were micro-threaded implant neck designs. There was no bone loss in either of the Groups except for 2 cases in the Group 2 where the marginal bone loss was noted. ISQ values showed a significant increase over the 12 months compared with the first measurement at the time of placement.

Conclusion: The implants had a 85% success rate. The ISQ values increased from baseline to three months up to 12 months in both the groups. The marginal bone loss was found in Group2 in two cases.

Key words: dental implants, micro-thread, resonance frequency analysis (RFA), marginal bone loss, implant stability