OSSEO-DENSIFICATION: A BLESSING TO IMPLANT DENTISTRY

Primary stability of dental implants is provided by mechanical friction between external implant surface and walls of the implant osteotomy. Key factors in enhancing this stability are bone density, surgical protocol, implant thread type and geometry. Osseodensification (OD) involves preparation of implant bed, to develop a condensed autograft surrounding the implant, which enhances implant stability with Densah burs for implant placement. Densah burs progressively increase in diameter throughout the surgical procedure and they preserve and condense bone at 800-1500 rpm in a counter-clockwise direction (OD) and precisely remove bone at 800-1500 rpm in clockwise direction (cutting mode). This relatively new concept with universally compatible drills has been proposed to help in better osteotomy preparation, bone densification, indirect sinus lift and also achieve bone expansion at different sites of varying bone densities. Rationale behind this process is the densification of bone that will be in immediate contact to implant resulting in higher degrees of primary stability due to physical interlocking between bone and implant, faster new bone growth formation due to osteoblasts nucleating on instrumented bone in close proximity with the implant. Aim of this paper is to review ridge expansion technique for narrow alveolar ridges with osseodensification.