Mini Dental Implants in the Management of The Atrophic Maxilla and Mandible: A New Implant Design and Preliminary Results

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Although the edentulous population in the UK is falling, those that are rendered edentulous are becoming edentate later in life and with significantly resorbed ridges. This creates a challenge because the management of such patients and their ability to adapt to new dentures is impaired later in life. Despite widespread endorsement of two implants to retain lower complete dentures, the inability to comply has resulted in elderly patients with compromised ability to function and unable to eat a healthy diet. Mini dental implants may offer an ideal solution for the elderly edentulous population who may not be keen on invasive surgery for the placement of conventional dental implants. Further work is required to show the longevity of these restorations, however, existing research and clinical experience show that they potentially offer a simple solution to this group of patients. This paper presents the development of a new design of mini implant, based on clinical problems encountered during a pilot randomised controlled trial. The design of the new implant specifically aims to overcome problems in managing severely atrophic ridges. A preliminary survival study shows survival rates to be equivalent to other mini dental implants and highly satisfactory in the short to medium term.

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