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Immediate Implant Loading in Osteoporotic Patients: Mini Review

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Mini Review

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Introduction

Immediate Loading in implant treatment has gained trust and confidence among implantologists. Hence, immediate loading needs careful criteria to be considered during treatment planning. Adell, et al. [1] advocated that implant micro movement caused by functional force around the bone-implant interface during healing may lead to fibrous tissue formation rather than bone [1]. Occlusal scheme is another key factor that predicts the success rate in immediate loading. Balshi & Wolfinger [2] claimed that most of failures in their immediate loaded implant patients were due to bruxism [2]. Surgical technique is another factor. Gentle surgery, absence of heat generation and operator experience play a marvellous role in raising the success rate. It has been elucidated that a temperature over 47 °C for a minute might yield heat necrosis in the bone [3,4]. Success rate effect ranged between negative factor to positive one in relation to the placement of immediate loading in fresh extraction sites and healed ones. Chaushu, et al. [5] claimed a negative effect if implants were loaded immediately in fresh extractions sites [5]. Whereas, Jo, et al. [6] claimed a higher success rate when implants loaded immediately in fresh extraction sites [6]. Operators' skills play a significant factor in enhancing implant treatment success. Clinicians who placed more than 50 implants will reduce the failure rate by 50% when compared with inexperienced ones [7]. Implant design plays a relevant role for yielding primary stability [8]. MalÓ, et al. [9] found no difference in success rate after 1 year between implants inserted with insertion torque ≥ 30 Ncm compared to implants inserted with torque < 30 Ncm [9]. Immediate implant loading for completely mandibular edentulous arches gained favorable clinical achievements in the long term [10]. Khan, et al. [11] claimed that platelet rich fibrin has a role in preventing bone loss during the surgical to prosthetic phase [11].

Bone diseases affect on implant osseointegration. Osteoporosis is an example; it is characterized by a decrease in bone mass, and considered a major public health concern [12]. Many authors [13-15] have advocated that mutilation of osseointegration might occur around implants in osteoporotic animal specimens. Degidi & Pittelli [16] advocated that it is possible to immediately load dental implants in an osteoporotic patient [16]. Osteoporosis is not a contraindication for implant therapy [17]. Oteoporotic patients received dental show acceptable outcomes [18].

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