Multiple Immediate Osseo - Fixation Implants in Mandibular Esthetic Zone

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Abstract

The replacement of missing tooth with implant – borne restorations has become a treatment modality accepted by the scientific community for fully & partially edentulous patients. Recent reports have demonstrated the successful placement of dental implants into the bicortical screw [BCS] implants into the fresh extraction socket and one BCS-EX implant placed in mandibular esthetic zone. All the implants were immediately loaded.

Keywords: Dental implant, Immediate loading, Osseo-fixation, Esthetic zone, Rehablitation.

Introduction

Dental rehabilitation of partially or totally edentulous patients with dental implants has become a routine treatment modality in the last decades, with reliable long term results. However, unfavorable local conditions of the alveolar ridge, due to atrophy, periodontal diseases & trauma sequelae, may provide insufficient bone volume or unfavorable vertical & horizontal implant placement is severly atrophic jaws is especially challenging because of poor quality & quantity of the bone available[5]. A modern implantology system which utilizes the basal cortical portion of the jaw bones which is known as Bicortical implant / Basal implant / osseofixation implant. Which are uniquely designed to be accommodated in the basal cortical bone areas. The basal bone provides excellent quality of cortical bone for retention of these unique & highly advanced implants[10]. Here we present a case in which BCS and BCS-EX implants have placed.

Case Report:

A 28 year old male reported to omfs department, shree bankey bihari dental college, Ghaziabad with chief complain of presence of root stumps and mobility of tooth in lower anterior teeth region. Patient gives history of injury due to RTA 2 year back, patient had oral rehabilititation with RCT followed by PFM bridge and in upper esthetic zone and RCT followed by individual crown in lower esthetic zone there was no significant medical history, patient was advised to undergo full mouth scaling followed by immediate placement of two BCC implants in 31, 32 region. The BCS-EX in 41 region. After immediate extraction anfd implants were placed and satisfactory primary stability was achieved with all the three implants and primary stability was also checked with the help of OPG which showed good basal bone anchorage.

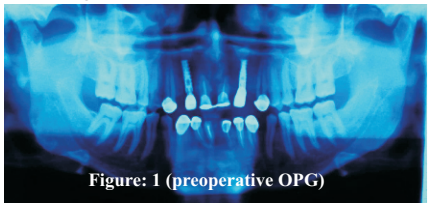

Figure: 1 (preoperative OPG)

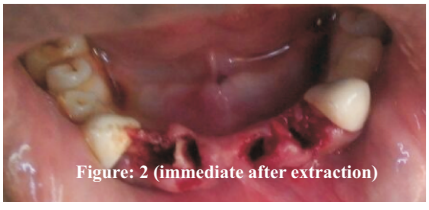

Figure: 2 (immediate after extraction)

Figure: 3 (Implant placed immediate after extraction)

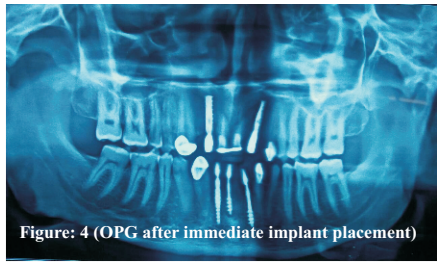

Figure: 4 (OPG after immediate implant placement)

Discussion:

The immediate loading dental implants are more predictable than before[3], tough the chances of crestal bone loss are comparatively higher[1]. It can be speculated that early loading may interfere in the formation of nasal bone in areas of necrotic bone [created by surgical trauma][7]. The basal implants provides excellent primary stability along the vertical surface of these implants not needed for corticalizations so the basal implants are well suited not only for immediate loading but also for immediate placement[9] the basal implants are single-piece implants with an apical compression thread. The compression screw design facilities immediate prosthetic loadings. The single-piece implants work well in D1 and D2 bone {esthetic zone}. In order to achieve primery stability, osteotomy was done 3.5 mm apical to extraction socket which is the main function determining the success of immediate implants. In the present case, the one root stumps 41 and three Root canal treated tooth 42, 31 and 32were extracted and preserving the sockets and thereafter two BCS implants placed in 31 and 32 regions where bone was compromised and one BCS- EX implant was placed in 41 region. The extraction site was evaluated prior to placement of implant. In the present case two BCS and one BCS-EX implants were placed instead of four extracted tooth and loaded immediately which showed promising results. So BCS and BCS-EX implants are well suited not only for immediate loading and also for immediate prosthesis placement [Within 72 hours]. So it is more suitable for esthetic zone.

Conclusion:

The installation of basal implants today is a routine procedure. The philosophy of this treatment differs from conventional implantological thinking. Since the possibility of mounting prosthesis does not depend on the presence of vertical loss of, alveolar bone or the presence of bone in the area of the desired tooth. The higher success rate of basal implants [BCS and BCS-EX] in mandibular esthetic zone have changed the quality of life, For many patients. Immediate implant placement following tooth extraction has been found to be a viable and predictable solution to tooth loss reduced number of surgical appointments. Reduction of time between tooth extraction and placement of a definitive prosthesis restoration, prevention of bone resorption and preservation of soft tissue architecture. So basal implant [BCS and BCS-EX] are the devices of first choice for immediate implant placement in mandibular esthetic zone followed by immediate after extraction.

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