



AN IMMEDIATE IMPLANT PLACEMENT APPROACH IN A FAILED PROSTHESIS : A CASE REPORT

Dental Science

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ABSTRACT

Immediate dental implant placement comprises the installation of implants immediately after tooth extraction, eliminating the necessity of having to wait for the alveoli to heal. If performed successfully, patients benefit from fewer surgical procedures and a faster permanent tooth solution making this technique a popular alternative to conventional implant placement.

KEYWORDS

immediate implant, failed prosthesis

INTRODUCTION

Immediate dental implant placement involves reduction in the number of necessary surgical interventions and reduced treatment period, improved implant orientation during its installation, preservation of the tooth extraction area and improved esthetics of the surrounding soft tissues. High success rates have been documented following immediate implant installation in extraction sockets. The correct placing of immediate implants in relation to the alveoli bone walls as well as all dimensions must be carefully taken into consideration for adequate implant positioning, since bone tissue suffers constant remodeling, both vertically and horizontally during the healing process.^{1,2,3,4,5,6}

CASE REPORT

A 50 years old male patient complained of food lodgement and difficulty in chewing food due to dislodged crown and fractured abutment in the lower left back tooth region of the jaw for one month. Patient had undergone root canal treatment for the same tooth 6 years back which was followed by porcelain fused to metal crown. The concerned tooth was grade 1 mobile but there was no associated pain or sensitivity. The patient was given a detailed explanation concerning the present state and all treatment plan options and the proposed procedure which included atraumatic extraction of 36 followed by immediate implant placement. The diagnostic casts revealed sufficient mesiodistal and buccolingual width for implant placement. Radiographic investigation was done and the orthopantomogram revealed no periapical pathology irt 36. An implant of dimension 4.2 by 13mm was planned as mesiodistal space of 7mm, bucco-lingual space of 7mm and an apicocoronal space of 16mm was observed from casts and radiographic investigations. Atraumatic extraction was carried out irt 36 to preserve the buccal plate. After sequential osteotomies, implant of dimension 4.2 by 13mm was placed into the extraction site. Following this, synthetic nanocrystalline hydroxyapatite bone graft (sybograf) was placed along with resorbable membrane (periocol). The site was sutured and antibiotics and analgesics were prescribed for five days. The patient was recalled after 10 days for suture removal. At this stage, healing process was assessed and the site was evaluated for inflammation, suppuration or pain. Peri-implant bone was subsequently evaluated through periapical radiographs and osteointegration was achieved after 4 months. Following this, second stage surgery was carried out and healing abutment was placed and the patient was recalled after 15 days for evaluation of soft tissue healing around the per mucosal attachment. After achievement of proper emergence profile, a closed tray impression was taken and a porcelain fused to metal prosthesis was fabricated.



Fig 1 Implant prosthesis in occlusion

CONCLUSIONS

Immediate implant placement technique offers promising results provided that a proper treatment approach has been used. When the aforementioned considerations are properly monitored and managed, immediate implants can provide good results with the added bonus of reducing the number of surgeries and the overall time needed for treatment to conclude.

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