

CASE REPORT**IMPLANTS IN FRESH EXTRACTION MOLAR SOCKETS – A CASE REPORT WITH 5 YEARS FOLLOW UP**N Girish Kumar,¹, Arpreta Sachdeva²**INTRODUCTION**

Reestablishing optimal esthetics is one of the most important challenges in replacing missing teeth in the anterior esthetic zone especially in the maxilla. The biggest problem faced by the Implantologist in restoration of ideal form and function is the lack of bucco-lingual width as well as soft tissue architecture in the residual alveolus. Placement of implants in fresh extraction sockets helps to prevent ridge resorption, preserve soft tissue architecture, reduces the number of surgeries and its attendant complications and saves time and cost for the patient. We report a case of immediate implant carried out in our clinic.

CASE REPORT

A 36 year old man came to the clinic for restoration of a broken tooth. On examination 21 was found to be fractured at the cervical margin. The patient had undergone root canal treatment before and had a crown fitted which broke off. The IOPA X-ray showed inadequate root canal treatment with a peri-apical radiolucent lesion. The patient was advised to get the tooth extracted and an implant placed. After taking written consent of the patient, patient was taken up for extraction of the tooth and implant placement in the same sitting. Atraumatic extraction of the tooth was carried out with luxators and forceps preserving the buccal cortical plate.

An Oraltronics Pitteasy Bio-Oss implant 4mm diameter and 12 mm length was placed in the socket at crestal level. The gaps between the socket and the implant was filled with G Bone graft and then a resorbable barrier membrane was placed over the defect. The wound was closed primarily after advancing the buccal flap.

Antibiotics and analgesics for prescribed for five days. Patient was given a soft-lined removable denture to wear

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during the healing period. Chlorhexidine mouth wash was given to the patient to use for next two weeks. Sutures were removed after seven days. Postoperative period was uneventful.

The patient was called for review after one week, two week, one month, two months three months and six months. After six months the patient was taken up for prosthesis fabrication. The IOPA X-ray taken after six months showed good osseointegration with resolution of the peri-apical radiolucency. The patient was followed up for up to two years and had excellent function with insignificant crestal bone loss.

DISCUSSION

The report describes the successful rehabilitation of a patient with fractured anterior tooth with extraction and immediate implant placement. Placement of implants in fresh extraction socket has been widely accepted as a treatment modality with success rates reported varying from 94-100%²⁻⁶. The success rate in maxilla varies from 66-95% and in the mandible 90-100%⁷.

The main advantage from a patient's view point are the psychological benefit, less trauma, decrease in treatment time, number of visits and number of surgical procedures and better esthetics, feel and comfort. From a dentist view point, the main advantage of the immediate implant based prosthesis are the preservation of residual bone, soft tissue height and contour; more ideal position of implant and higher capability for osseointegration as the fresh extraction socket has better healing potential. Case selection is very important in achieving higher rate of success. The soft tissue around the tooth to be extracted, the position of the tooth in relation to the adjacent teeth as well as the opposing tooth should be taken into consideration to ensure ideal prosthetic rehabilitation after implant placement^{8,9,10,11}. A minor degree of correction of the angulation is possible during osteotomy if the natural tooth is not ideally placed in the arch. The height of the alveolar crest is also another important consideration to achieve good esthetic results. Atraumatic extraction of the tooth should be done with the preservation of the buccal bone. This can be achieved by the use of periostomes and luxators. If there is some deficiency of the buccal bone, it can be augmented with



Fig. 1: Pre-op root stumps



Fig. 4: Five year post-operative



Fig. 2: Socket after extraction



Fig. 5: IOPA post operative



Fig. 3: Primary closure (Immediate)

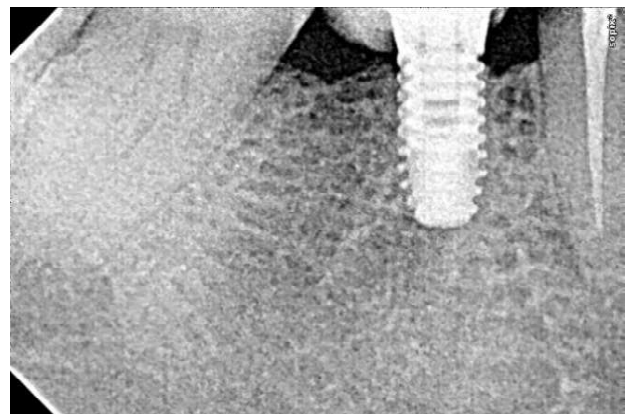


Fig. 6: IOPA 5yr post operative

bone grafts and membrane. In such cases advancement of the flap to achieve primary closure is a must. This is also true when the implant does not fit snugly into the socket at the cervical region as was seen in our case. If adequate initial stability is achieved by the use of the

widest diameter of the implant to fill the socket and the depth is 3-4 mm beyond the root apex in D2 and D3 bone, early loading can be planned.

CONCLUSION

Implants placed into fresh extraction sockets provide the best method of replacing an unrestorable tooth

especially in the anterior region. It allows preservation of alveolar bone and provides the best esthetics. If done properly, it is a predictable mode of replacing an un-restorable tooth.

SOURCE OF SUPPORT: NIL

CONFLICT OF INTEREST: NIL

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