MAXILLARY IMMEDIATE DENTURE: A CASE REPORT

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ABSTRACT
This clinical report describes the treatment of restoring the anterior teeth of 60-year-old man with partial edentulous upper and lower jaw. Patient esthetics is not impaired by giving immediate denture immediately after extraction of his poorly prognosed natural teeth. The prime considerations while fabricating the prosthesis is to restore phonation, oral hygiene, followed by esthetics.

Key Words: Immediate Denture, Esthetics, Centric Relation

INTRODUCTION
Esthetics is prime concern for patients with high socio-economic status. To prevent the period of edentulous an immediate denture is a versatile treatment option. An immediate complete denture is a dental prosthesis constructed to replace the lost dentition and associated structures of the maxillae and/or mandible and inserted immediately following removal of the remaining natural teeth. In order to accept a prosthesis by the oral cavity it has be fulfilling the following requirements like (Tadi et al., 2012) Compatibility with the surrounding oral environment (Clark and Radford, 2011). Restoration of masticatory efficiency within limits (StGeorge et al., 2010). Function in harmony with the activity necessary in speech, respiration, and deglutition (Tata and Nandeeshwar, 2012). Esthetic acceptability (Boucher’s, 2010) preservation of the tissues that remain. It is possible that the lack of fulfilling these requirements contributes to unhealthy oral conditions.

CASES
A 60 years old patient had reported to Department of Prosthodontics in Drs. Sudha & Nageswara Rao Siddhartha Institute of dental science, Vijayawada for replacement of missing teeth in upper and lower front teeth Figure 1A, 1B. After through intra oral and periodontal status examination we had planned for an immediate complete maxillary denture and removable partial denture in mandibular arch.

Procedure
A diagnostic cast is recovered from diagnostic impression with irreversible hydrocolloid for evaluating the tooth position, jaw relationships, and occlusal plane discrepancies (algitex, dental products of India, Mumbai) (Tadi et al., 2012). Analyze undercuts. The cast is marked for recontouring the bone with help
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of an oral surgeon (Clark and Radford, 2011). Primary impressions are made with irreversible hydrocolloid (alginate) in a stock tray. This is poured in dental stone. A custom tray is fabricated with auto polymerizing acrylic resin (DPI heat cure dental products of India, Mumbai) on the preliminary cast. The remaining teeth are covered with a double thickness of base plate wax (Hindustan dental products). This provides space for the impression material around the teeth. Any undercut areas are blocked out with wax. The tray borders should be sufficiently thick for making the final impression; the mobility of the remaining teeth must be evaluated. Overextended sections are relieved and borders reduced to provide room for the border molding material. The posterior palatal seal be determined at this time and transferred to the tray. Border moulding is performed with green stick compound (DPI pinnacle tracing sticks dental products of India, Mumbai). Perforations are placed in the tray to enhance the flow of the impression material and increase its retention within the custom tray. The tissue surface of the tray and the borders are covered with the appropriate tray adhesive (Tray adhesive Medicept Dental, U.K.). Light –bodied polysulphide rubber (Reprosil DENTSPLY Delhi) is the material used in making the final impression.

Recoding base is fabricated from auto polymerizing acrylic resin (DPI heat cure dental products of India, Mumbai), and an occlusal rim is made from baseplate wax (Hindustan dental products). A face-bow record is made to orient the maxillary cast on the articulator (Hanau spring bow). Vertical dimension is determined. Phonetics method is used for evaluating the vertical dimension. The centric relation record is made with bite registration paste. The centric relation record is removed from the mouth, trimmed, and verified. The Mandibular cast is mounted using the centric relation record. A protrusive interocclusal record is made to set the condylar guidance on the articulator (Hanau wide-vue).

The existing dentition is used as a guide. If the immediate denture opposes natural teeth then anatomic tooth form is desired. If opposes a complete denture then either anatomic or non anatomic teeth can be given. Posterior teeth are set to provide multiple bilateral posterior contacts in centric and eccentric positions. Centric relation and vertical dimension are verified. Arrangement of anterior teeth is done after the posterior try–in. The anterior teeth are removed one at a time from the master cast. Each teeth is reduced to the gingival margin with a rotary instrument and smoothened with a hand instrument denture tooth is placed in its place this procedure is repeated with each tooth. Denture is waxed up. Dewaxing is done. Denture is processed using heat cure acrylic resin (DPI heat cure dental products of India, Mumbai) in compression mould technique. Stored in a germicidal solution and thoroughly rinsed prior to insertion. Patient is prepared for surgery. The remaining teeth are removed with minimum of trauma. A clear surgical guide (DPI heat cure dental products of India, Mumbai) is used to evaluate the prepared surgical site Figure 2A, 2B.

![Figure 2A: Showing custom made surgical template. 2B: post operative extraction socket view.](image-url)

The immediate denture is seated after surgery and gross occlusal prematurity are eliminated while the patient is still under anesthetic effect. The denture must be manipulated as minimum as possible to
minimize the damage to the surgical site. Denture insertion is made. If the dentures are poorly adapted or lacking in retention and stability tissue conditioners can be placed. Post insertion instructions were given to the patient Figure 3A, 3B.

Figure 3A: showing prosthesis is inserted. 3B, 3C: showing patients right and left occlusion.

DISCUSSION
Indications: Multiple extractions. E.g.: Periodontal weak teeth. Patient needs/demands. E.g.: socially active people, self conscious. Contraindications: Poor general health, uncooperative patients, elderly patients, patients suffering from diabetes, tuberculosis, other debilitating diseases, extreme cases .patients with sound oral health.

The advantages of immediate dentures include: no edentulous period. Patient is less apprehensive. Patient can continue with his normal activities. Digestive function is not interrupted. General appearance is less affected. Bone resorption of the ridges is minimized. Unfavorable speech and chewing habits are not likely to occur .Centric relation is easier to record. Patient takes less time to adjust to the change, healing is faster and less painful. The immediate denture acts as a matrix for controlling hemorrhage, protects the wound, and prevents contamination. The natural teeth act a guide for the setting of the artificial teeth. Disadvantages: The immediate denture needs to be relined or remade. No anterior try-in done. If the teeth are very mobile undercuts and interproximal are blocked with soft wax to avoid extracting the teeth with the impression. In severe cases a vacuum-formed resin stent can be utilized as a protective sheath while making the impression the custom tray is placed in the patient's mouth and evaluated (StGeorge et al., 2010).

The following instructions are given to the patient. Application of cold packs .the patient is advised to wear the denture for the next 24 hours .and to avoid smoking, expectoration and use of mouthwash. Soft diet is advised. Appropriate pain control medication.post insertion care: After 24 hours check the occlusion .denture is removed and the tissue is evaluated for ulceration and over extension. Tissue surface of the denture is cleaned .patient is asked to rinse the mouth with a good tasting mouthwash. Then denture should be removed and reinserted as minimum number of times as possible .after 48 hours: All the things done during the previous appointment is repeated. Patient is instructed to clean the denture several times in a day. The patient should wear the denture in the night for three days. After one week: Remove the suture. Recheck the occlusion. Tissue surface evaluated with pressure indicating paste .any soreness or irritation relieved. New soft liner is added if denture is relined during insertion time. 3 to 4 weeks later: Subjective complaints are addressed. Clinical remount performed. Occlusion refined. Resilient liners are repeated at intervals of 4-6weeks for six months. After 6 months: The immediate denture is relined or remade. If the patient is satisfied with esthetics and function the denture is relined. Compromised
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Esthetics or retention or if the denture is not adequately extended a new denture is remade. Before it is relined or remade the tissues should treated with tissue conditioners (Tata and Nandeeswar, 2012).

Conclusion

Immediate denture is one option for the patient facing the edentulous state an immediate denture provides restoration of esthetics, phonetics and masticatory function. The patient does not have endured a long healing process with out teeth; it also facilitates the transition to the edentulous state. Proper follow up care is essential for the success of an immediate denture.

REFERENCES


