

Fabrication of a Denture without Try-In Clinical Trouble Shooting

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Abstract

An immediate denture is a prosthesis which is fabricated without a denture try-in procedure in the patient's mouth and inserted at the same visit immediately after extraction of the teeth. This article presents an atypical case where the immediate interim denture had to be fabricated while the patient waited in the chair.

Introduction

Frequently, patients come to the dental clinic with severely mobile teeth because of periodontal disease, which were part of their fixed prosthesis. Periodontal disease, coupled with tooth mobility and bone loss, can make for a difficult situation for taking impressions. The impressions are a diagnostic need in appropriate treatment planning. This situation may result in a managed-care procedure becoming instead a problem-care situation. Most of the time these teeth are extracted and an immediate prosthesis is given to restore the patient's esthetic until definite treatment care is planned.

There are two types of immediate dentures which are normally fabricated for patients—regular immediate dentures and interim immediate dentures. The interim type of prosthesis is used for short-term as a temporary denture. Khan et al., fabricated an immediate transitional complete denture in one appointment using self-polymerizing tooth-colored and visible light-cured resins.¹ There are various techniques for fabrication of an interim.^{2,3} This article presents an atypical case where the interim had to be fabricated while the patient waited in the chair, as the fixed bridge from the patient's mouth came out in the impression tray while removing the impression from the mouth.

Case Report

A 60-year-old white Caucasian female patient presented to the removable prosthodontics clinic for treatment care for a maxillary anterior fixed bridge which was non-restorable and had mobility. The patient opted for a complete upper denture and mandibular

partial denture, as the maxillary fixed bridge was loose and was making her chewing difficult. The radiographs showed #6 as a single unrestored tooth, and a fixed anterior bridge from #7 to #11. Number 10 was a pontic for the fixed bridge (Fig.1). The crowns had carious open margins.

The patient had no significant medical history and the student planned to take initial diagnostic impressions to begin treatment. While the student was removing the alginate impression tray from the mouth, the fixed bridge came out in the impression along with the teeth (Fig. 2). The situation was explained to the patient, who was assured that her esthetic would be restored by making a temporary denture while she waited. The patient understood and agreed to wait until the procedure was completed for fabrication of the immediate prosthesis.

Step by Step Technique

1. The fixed bridge was carefully removed from the alginate impression. The roots were cut just leaving some marginal area. Necrotic nerves were removed from the canals. Crowns were cleaned of debris inside. The root canals were cleaned using high speed. Of the remaining teeth, half the roots were cut.
2. After cleaning in a sterile solution, the fixed bridge was carefully inserted back in the impression. A stone cast was poured to capture the fixed bridge on the model (Fig.3).
3. A wrought wire clasp was fabricated around the maxillary right cuspid, and the cast was mounted on the articulator.
4. The cast was lubricated with petroleum jelly. Pink self-cure acrylic resin was added using the sprinkle-on technique to generate the flanges and palate (Fig. 4).
5. Selected posterior teeth were added using dough of the same acrylic resin to complete the posterior arch (Fig.5).
6. The fabricated complete denture was finished, polished and tried in the mouth, and occlusion was adjusted. Visco-gel reline material was used to enhance retention. The patient left the clinic satisfied after these adjustments (Fig.6).

New Look for NJDA Website

NJDA's updated website went live in July. Visit www.njda.org for the latest in state, local and national dental information, including regulatory changes that have recently gone into effect. See Executive Director Art Meisel's message on page 6 for a summary of these recent developments.

In addition to finding member benefits and CE opportunities, you are encouraged to link your website to www.njda.org to provide your patients with easy access to consumer-friendly oral health information. ○



Summary and Discussion

The case report is presented to share an unexpected situation where the supporting teeth of an anterior fixed bridge were mobile and non-restorable. The teeth and fixed bridge came out in the impression tray while the tray was taken out of the patient's mouth. A technique is presented to incorporate the patient's fixed bridge during fabrication of an interim removable prosthesis. The patient left the clinic satisfied with a temporary denture for esthetics. ○

References:

1. Khan X, Haeberlae CB. One appointment construction of an immediate transitional complete denture using visible light cured resin. *J Prosth dent.* 1992, 68-500-2.
2. Gotleib S, Anton, Askinas W, Samuel, An atypical chairside immediate denture, a clinical report. *J Prosth Dent.* 241-243, Sept. 2001.
3. A Gooya, AR Adli, M Ejlali. fabricating an interim immediate partial denture in one appointment (modified jiffy denture). A clinical report, *J Prosth Dent,* 330-333, June 2013.

Legends

Fig. 1. Radiographs showing right maxillary cuspid and fixed bridge from right lateral incisor to left maxillary cuspid.

Fig. 2. Maxillary bridge which came out, cleaned, placed back in alginate impression.

Fig. 3. Fixed bridge in stone cast, wire clasp bent around canine.

Fig. 4. Flanges and palate built with self-cure acrylic resin using sprinkle on technique.

Fig. 5. Completed, finished denture.

Fig. 6. Pre- and post-insertion photos of completed denture.

About the Author

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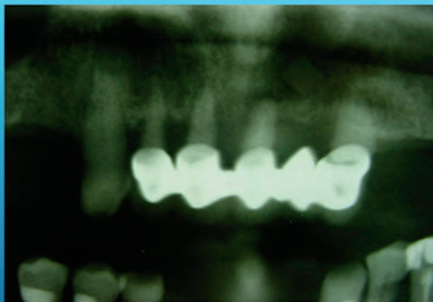


Fig. 1



Fig. 2



Fig. 3

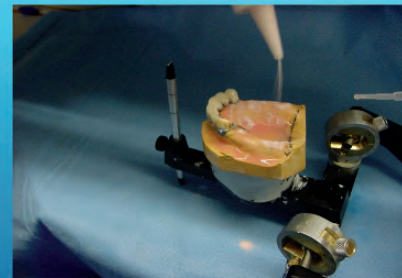


Fig. 4

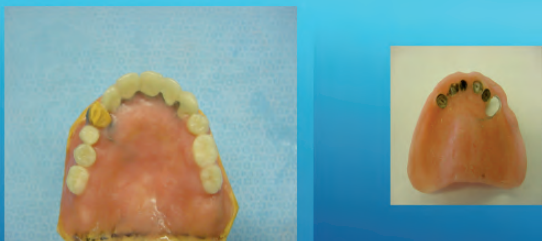


Fig. 5



Fig. 6