

CASE REPORT

The New ID Proof: A Case Report of Denture Labeling

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ABSTRACT

Denture labeling is not a new concept in either prosthetic or forensic dentistry and its routine practice has been urged by forensic dentists internationally for many years. Prosthodontists are playing very important role in forensic dentistry as they are concerned with fabrication of various prostheses which can serve as an important tool for identification. The main objective of this article is to discuss the various methods available for denture marking along with a case report.

Keywords: Denture labeling, Denture identification, Denture identity, Denture markings.

How to cite this article: Gujjalapudi M, Anam C, Mamidi P, Saxena A, Kumar G, Rathinam J. The New ID Proof: A Case Report of Denture Labeling. *J Orofac Res* 2013;3(1):63-65.

Source of support: Nil

Conflict of interest: None declared

INTRODUCTION

Denture labeling is used as a method of identifying persons in geriatric institutions or postmortem during war, natural disasters and crimes.¹ In geriatric and psychiatric wards, the incharge nurse may collect the dentures from all the admitted patients for cleaning them at a time, and might end up with the problem of returning the dentures to the appropriate owners.² The dental fraternity understand the value of denture labeling, hence, in nursing homes, the psychiatric and geriatric patients and their respective dentures can be identified using this method. This denture labeling is very much useful in cases of unconsciousness or loss of memory or for forensic purposes. It is also useful for accurate and early identification of the dead and injured during natural calamities, such as floods, major fire accidents, and earthquakes, hence this adds more value on realising the importance of this tool.

DENTURE LABELING METHODS

Denture labeling methods are of two types: Surface marking method and method of inclusion.³

Surface Marking Method

Identity marks are written on to the surface of the denture using a spirit-based pen or pencil before covering them with a clear acrylic denture base resin material.

Inclusion Method

Identity marks or materials are embedded or incorporated within the denture base material.⁴

Methods of Denture Marking in Complete Dentures

The materials that can be used for this purpose include lenticular cards,⁵ lead foils, laser etched discs, bar codes, matrix codes, microchips for radio frequency tagging, patient photographs, metal strips of stainless steel commonly referred as a 'shim stock,' matrix band, aluminium foil, mixing pad paper and wax separating paper.

The appropriate areas for denture marking include: (i) In the maxillary denture, the posterolateral region in the palate is the best or, if space exists, buccal to the tuberosity is preferable. Cameo or polished surface of denture is given preference, so that they will be seen when relining is carried out and (ii) distolingual flange of mandibular denture is the preferred site. Sufficient thickness of resin will be present in these areas to incorporate the markings without any technical difficulties, so these areas are preferred.

Methods of Denture Labeling in Removable Partial Denture

An embossed tape with patient details can be placed into the major connector portion of the plastic pattern of cast partial denture framework and the casting should be performed.⁶

Methods of Denture Labeling in Fixed Partial Denture

During porcelain build up, after baking the opaque layer, dentin porcelain should be applied and during this step, initials or letters can be carved with the brush and stains can be applied for the initials. After this procedure gets over, the enamel porcelain is applied and shaped with soft brush. Due to limited amount of space available, only initials can be carved. Palatal or lingual surfaces of crown and bridges are preferred for this purpose.⁶

CASE REPORT

An 80-year-female patient reported to the Department of Prosthodontics of Panineeya Mahavidyalaya Institute of Dental Sciences with a complaint of missing teeth in the upper and lower arches since 10 years. Her history revealed that she was a complete denture wearer since 6 years, but she has lost those dentures by misplacing them and due to her age factor she could not remember where she has misplaced. So, it was decided to fabricate a maxillary and mandibular complete denture by incorporating denture identification marks.

TECHNIQUE USED FOR MANDIBULAR DENTURE

1. Two pieces of lead foil was cut into the desired size (approx. 2.5 and 3.5 cm of length and 1.5 cm width). With a small rose head bur in a standard laboratory handpiece, the patient's name, identification number was engraved⁷ on one foil and name of the institution with location was engraved on the second foil (Fig.1). Excess foil was trimmed with a pair of sharp scissors to make the nameplate as small as possible.
2. Flasking of the mandibular denture was carried out in the normal way to trial closure after the wax try-in. The plastic packing sheet was removed and a piece of metal tape was inserted the same size as the nameplate, but double the thickness of the area where the nameplate was positioned⁸ (distolingual flange area of the mandibular denture) on both the sides. The plastic packing was replaced and the flask was retightened.
3. The flask was reopened and the packing plastic and double thick metal plates are removed on both the sides to leave a relief space of the required size.
4. The nameplates are inserted in the relief space, and heat polymerizing clear acrylic resin was sprinkled over it⁹ (Fig. 2).
5. The denture was cured according to the manufacturer instructions.
6. Deflasking, trimming and polishing was done to complete the procedure.

The same procedure was followed in the maxillary denture; but instead of lead foil, the patient photograph was incorporated (Fig. 3).



Fig. 1: Lead foil with details engraved



Fig. 2: Mandibular denture with identification marks



Fig. 3: Maxillary denture with photo identification mark

DISCUSSION

In recent years, edentulousness has been reduced due to advancements in the field of dentistry and awareness about oral health. But still, there is a necessity to address the issue of denture marking for social and legal reasons because the oral status of population varies from region to region and the wearing of dentures will be a must in future older individuals. In fact in 1982, American Dental Association (ADA) has encouraged denture labeling in all newly fabricated dental prosthesis. The information that could be included in the identification label can be debated. In general, the postal code is enough for forensic purposes but for those persons in old age homes, nursing homes or hospitals whose memories are not trust worthy, the denture label with the name would be ideal. If the patient's clinician wants to maintain a review reminder, then the year of manufacture of the denture can be included. If necessary, a combination of information can also be included in a simple descriptive manner.

SUMMARY

From the overview, it is clear that the denture appliances with identification marking can be taken as important evidence in forensic investigation and in various medicolegal issues. These kinds of dentures are really helpful in saving time, preventing anxiety and confusion associated with misplaced dentures. At least from now, we should make sure that all new dentures fabricated should have names imbedded in the acrylic resin in the hope that problems of denture identification will be eliminated in the future.

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