

PERSONALISATION OF A DENTURE

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Article Info: Received 11 July 2020; Accepted 07 August 2020

DOI: <https://doi.org/10.32553/ijmbs.v4i8.1341>

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Conflict of interest: No conflict of interest.

Abstract

Dentures, whether complete or partial, are the mostly used prosthesis worldwide by the people who are in lack of their natural teeth. Dentures have become a necessity for them for esthetic, functional and psychological reasons. Personalisation of the prosthetics (dentures etc.) has become a challenging job for the dental surgeons worldwide. It is also useful in forensic dentistry for identification of individuals in natural or human aggressive calamities. Though various methods have been described for identification of dentures but none of them fulfill all the requirements prescribed by American Dental Association (ADA). Here, a method for personalisation of denture will be described which is cosmetically appealing and cost effective. Besides, it satisfies most of the requirements laid down by ADA simply by adding up a few steps in the procedure of denture fabrication.

Keywords: Denture Tagging, Denture Labeling, Denture Marking, OHP sheet.

Introduction

Identification is a birthright of every individual it is essential for all medico legal cases and also in natural disasters like earthquake, volcanic eruption and manmade calamities like wars, criminal offences, disastrous rituals etc. which has been a challenging task. The labeled dentures are very useful in identifying the people with lost memory and mortals of mass disasters⁽¹⁻²⁾. The latest branch developing in dentistry is Forensic Dentistry, which deals with the identification of individual. Forensic Odontology is the branch of dentistry which deals with the proper handling and examination of dental evidence and the proper evaluation and presentation of dental findings in the interest of justice. In fact, it is found that the renowned persons of the world such as Adolf Hitler who was a German politician as well as leader of Nazi (Nationalsozialistische Deutsche Arbeiterpartei) and even an initiator of World War II. But, after the end of world war II Adolf Hitler and his wife was burned and then buried by Russian soldiers. Identification of Hitler was a difficulty in this situation, but then pieces of Hitler's jaw were found that showed remnants of a bridge, with unusual forms of reconstruction and this was identified by Hitler's dentists Hugo Blaschke⁽²⁻⁸⁾.

Secondly Dr. Joseph Warren who was an American physician and even had a leading role in American revolution was killed at the battle of Breed's Hill in 1776 at

Boston but he was not recognized the Paul reverer, silversmith and dentists identified him by the small denture that he had fabricated for him⁽²⁻⁸⁾.

Thirdly, respected former Prime Minister of India Rajiv Gandhi who was assassinated by a suicide bomber was identified by his dentition⁽²⁻⁸⁾.

Fourthly, late President of Pakistan, Zia-Ul-Haq who died in a plane crash was identified on the basis of dentition⁽⁸⁾. These aforesaid examples has surely highlighted on the importance of identification by forensic odontology.

"Everyone has a right to recognition everywhere as a person"-Article 6 of United Nations Universal Declaration of Human Rights⁽¹⁰⁾, Hence denture tagging is the best way for it which is also a mark of tribute, a way of gratitude to our patients. This is a way of help both in the Departments of Prosthodontics and Forensic science".

For e.g. In 1835, a gold denture helped identify the burnt body of countess of Salisbury. After the Second world war, 819 of the 30,000 of the unidentified dead soldiers were denture wearers but not identified⁽¹¹⁾. Thus the need of denture identification came to be known as an advantageous job. In 1835, when a gold denture helped identify the burnt body of countess of Salisbury⁽¹⁰⁾. So, this gave an idea that identification is possible even through dentures. The basic identification methods are of two types. First being Surface Methods and second being

Inclusion Methods. The surface method includes Engraving the second pour of investment, Engraving on the denture flange, and Writing with a marker on the flange. The inclusion methods include Memory cards, Bar codes, Name tags and Metal strips.

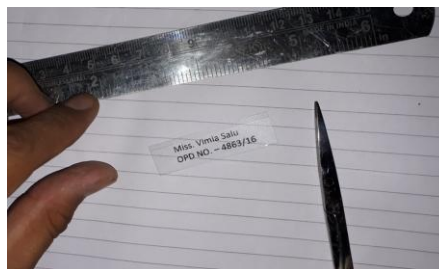
These methods of surface engraving or marker tagging wear off easily by use of a cleaner or a dentifrice. The inclusion methods like use of a memory card or any such material is costly and needs a plenty of time and are not simple to be done and it is also not simple to retrieve the information. The method described in the case report is one of the inclusion methods. It is cost effective and an easy method of tagging a denture with its owner's details. It is even cosmetically appealing to the patient. Being very personalized it does wonders to the patients self esteem.

Case report:

A 39 year old female reported to the Department of Prosthodontics and Implantology, Jaipur Dental College (OPD No. 4863/16) with a chief complaint of missing teeth and difficulty in chewing food since past six months, habitually a supari chewer for past ten years. Extra oral examination revealed reduced mouth opening and sunken cheeks. Intra oral examination revealed blanching and stiffness of oral mucosa but no palpable bands. Hence a diagnosis of oral sub mucous fibrosis was done. Further the maxillary and Mandibular arches were completely edentulous. As it was a challenging case, after brief discussion the patient was referred to the Department of Oral Medicine and Radiology for the treatment of Oral sub mucous fibrosis and was weekly followed for the required mouth opening for further treatment with respect to her chief complain. Additionally antioxidants and oral physiotherapy were advised. After gradual increase in mouth opening a conventional complete denture fabrication was planned.

Materials and Method:-

All materials generally used for fabrication of complete denture and the materials required for identification are Ohp sheet, Cello tape, Scissors, Metal scale, Printer. The steps required for conventional complete denture fabrication are performed as usual like the primary impression is recorded, secondly the secondary impression is recorded, the jaw relation is recorded and then the procedure for try in is performed. Now we proceed with the laboratory findings of flasking, dewaxing and then a step for identification is performed. We Take an Ohp sheet and take a print out of patient details on it within a reasonable size for Maxillary and Mandibular dentures. Cut the detailed Ohp sheet with scissors and cover the printed side of the Ohp sheet with cello tape.



We cover the printed side of Ohp with cello tape to secure it from acrylic as acrylic will distort the print out been taken. Mix heat cure acrylic and apply a thin layer of acrylic on the postero-lateral slope of hard palate of Maxillary flask and lingual flange of Mandibular flask.



Put the labeled sheet on previously layered areas and secure it with a layer of acrylic from above also. Then proceed with the regular Packing procedure and do the Curing according to routine protocol.



Conclusion:

Personal identification of an individual is an indispensable requirement in forensic odontology and medico legal investigations or, in case of an accident, loss of memory, state of unconsciousness being inadvertently misplaced on

admission to a hospital or in identifying casualties of natural or manmade calamities. Needless to say, dentistry has today evolved to play a pivotal role in the field of forensic science and generally in the process of identification of individuals. Identification through a denture is even a mark of appreciation of the patient by the doctor because as we know everyone likes to be called out by his/her name and the stated technique is the easiest way of identifying a denture without the use of any sophisticated equipments. Ending with you have a name, your denture has the same.

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