



## A short case report on denture identification for indian population using unique identification number

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**ABSTRACT**

Denture marking is the recommended procedure recognized by international forensic experts world over. Antemortem dental records/ restorations provide adequate information when used for person identification in horrid natural disasters . The objective of the paper is to propose incorporation of Aadhar ; a Unique Identification Number as a mean for denture identification for Indian population. A method for identifying an Indian national who is a denture wearer by inscribing the 12 digit UID NO on a plastic laminated paper and incorporating the same in a denture base is described . The proposed method is not practiced in India till present time , which is a highly impactful technique without requirement of costly instruments

**KEYWORDS**

Forensic Odontology, Denture marking, Unique Identification Number , Inclusion Method

**Introduction**

Natural calamity such as one happened in Uttarakhand , India on June 16 , 2013 led to fatality of many innocent people from various part of the country where dead bodies were swept away in the heavy current of flood water. Identification of the dead were difficult due to decomposition , mutilation and disfigurement of the bodies. During such an event , religious and cultural factors such as the performance of last rites in association with the disposal of bodies are of societal concern. Delay in identification of a deceased person results in tremendous suffering for the relatives and dependents. Apart from identification of deceased victims, establishing ownership of dentures in geriatric and mental institutions is also important to prevent any mix-up during cleaning procedures by attendants of these institutions<sup>[1,2]</sup> .

Over the years, several methods of denture labeling have been reported in the literature, these techniques include surface marking, inclusion techniques using metal or nonmetal materials, micro labels and microchips etc<sup>[3]</sup> .

With the above perspective, a procedure that can provide confirmatory information about an individual in his/her denture must be encouraged. Denture marking is vaguely practiced in India . Using the Aadhar no ( UID No. ) for denture marking would be a easy , simple yet fruitful procedure for Indian population for forensic identification.

**Method**

An edentulous patient was randomly selected . The patient was explained about the procedure of denture labeling , its merits and demerits. An informed consent was obtained from the patient in writing. The treatment plan was approved by the Institutional ethical committee ( Fig 1).

**Figure 1 ; AADHAR Card of the patient ( Name has been purposely removed from the aadhar card)**

All the steps in the fabrication of complete denture prostheses were followed conventionally. The 12 digit UID No. of the patient was typed using Calibri font with size 14 and printed on paper with a laser printer. The paper was cut into appropriate size to be accommodated in the maxillary denture . The printed paper was laminated on both sides with a thermoplastic sheet to avoid smudging of the printing ink while packing the acrylic dough in the mould. Total thickness of the label did not exceed 3 mm. At the stage of packing resin dough in the maxillary mold , the posterior part of pink acrylic resin was removed. The laminated paper ( denture marker) carrying the UID No. was inserted in the mold space on the polished surface side. Additional layer of heat polymerized clear acrylic resin was placed in the region of label. Denture processing was completed as per the manufacturers instructions . Final finishing and polishing was done after the retrieval of the denture [Figure 2].



**Figure 2 ; Maxillary denture labeling done with 12 digit AADHAR No. (UID NO.)**



## Discussion

A forensic odontologist's work load usually involves the use of dental tissues and restorations to identify a deceased unknown individual. This is dependent upon the provision of adequate information, especially antemortem dental records. The protocol and management surrounding the dental identification procedures should be within the legal constraints of the country .

The method of incorporating the country code and the identity card number in a denture is the recommended procedure recognized by international forensic, experts.

In the USA, denture marking is mandatory in 21 states , and the social security number of the individual is marked. In Australia, the tax file numbers are used, whereas in Sweden, the unique personal identity of the person is labeled <sup>[4]</sup> .

The Unique Identification Authority of India (UIDAI) is issuing a 12-digit unique identification (UID) number which for all Indian residents <sup>[5]</sup> . The number (referred to until now as the 'UID') has been named Aadhaar, which translates into 'foundation', or 'support'. This word is present across most Indian languages and can therefore be used in branding and communication of the UIDAI program across the country. This number will serve as a proof of identity and address, anywhere in India. Any individual, irrespective of age and gender, who is a resident in India and satisfies the verification process laid down by the UIDAI can enroll for Aadhaar.

The UID number is stored in a centralized database and linked to the basic demographics and biometric information – photograph, ten fingerprints and iris – of each individual

Unique features of Aadhaar ; 1.Universality, 2.Every resident's entitlement to the number, 3. Easily verifiable in an online, 4. cost-effective, 5. Unique and robust enough to eliminate the large number of duplicate and fake identities, 6. A random number generated, devoid of any classification based on caste, creed, religion and geography.

The inclusion method used here has advantages such as Ease of performance, easy availability of materials , patients identity can be easily established , strength of the prosthesis is not altered due to adequate thickness of the marker , location is in cosmetically acceptable area, inexpensive and biologically inert after being placed in the denture. However , some of the demerits of the procedure are irretrievability if the denture fractures in the area of denture labeling; in such an incidence , mandibular lingual flange is a safe location relatively. Also , the acrylic resin do not withstand temperatures beyond 300<sup>o</sup> C.

## Conclusion

There is a strong need to adopt an international policy for denture marking . In India using the AADHAR (UID No) for denture marking shall prove be a beneficial exercise in the field of forensic odontology or otherwise.

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