

Missing the Missing People. A Need for National Dental Registry (Database) In India

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Abstract:

Missing people phenomena is of prominent treat to the society with health, emotional and financial issues. In this phenomena lies also the recovered unidentified human remains, which should be processed also considering “Forensic Odontology”, a branch of dentistry and forensic sciences, which deals, in the interest of justice, with handling, examination and evaluation of dental evidence and dental findings. Civil, criminal and research are the triad of forensic odontology. Forensic odontology deals also with identification of unknown bodies who are referred as “missing persons and nameless bodies”. The main issue in the identification of human remains and the collection of identifying data is the availability of dental data of the missing persons. Dental data could be collected, interpreted, updated and organized by forensic odontologists, whose role in missing person investigation is neglected in India. This can result in a delay in the dentification process. Also, the authorities in India usually dispose unknown bodies not claimed up to 72 hours: a silent mass disaster. Identification is not only needed for missing person but also required in fire accidents, air crash, natural and man-made disasters. Interpol standing committee also recognizes these issues for legal, cultural and other reasons. Humans have rights not to lose their identity after death and identification of a victim may be of vital importance to police investigation. Interpol states that dental data is a primary identifier, along with fingerprint and DNA analysis. For all these reasons dental records should be collected regularly in dental clinics and the implementation a national dental database could overcome this concern. A National Dental Registry (NDR) should be formed by the Indian government. This paper highlights a protocol for the collection of dental records, structure of Indian Dental Database and proposes a method for identification of unidentified human remains which has many hidden benefits to our society.

Keywords: Forensic odontology, missing people, dental record, identification, India

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Introduction

The Federation Dentaire International (FDI) defines "Forensic Odontology" as that branch of dentistry which in the interest of justice, deals with the proper handling and examination of dental evidence and with the proper evaluation and presentation of dental findings in Court. Civil, criminal and research are the triad of forensic odontological activities. Forensic odontology main field of application is related to personal identification, which is also related to missing people. The main concern in missing people is search and collection of dental data. To this regards forensic odontologists play a pivotal role in identification missing and unidentified persons but too often they are neglected. This can result in a delay in identification and human remains are disposed by authorities as unidentified bodies. Hence, a National Dental Database in India would help in the identification of recovered human remains. The implementation of Indian National Dental Database (INDD) would allow a timely identification of unidentified human remains which further have financial and social benefits.

Missing People and India

Individual identification not only needed for missing persons but also required in fire accidents, air crash, natural and man-made disasters. But India is very far from this aspect. In India we often come across news like dead man returns home alive after the family identifying the body. In a case, a person is wrongly identified as Muslim and buried. A google search was made using the key sentence "identification using teeth by Indian police". The search showed only our former spirited Prime Minister Mr. Rajiv Gandhi was identified by his teeth (that too in a closed population) which was a shocking and unfortunate condition in India. Another bad example is forensic odontologist has hardly been used in 2004 Tsunami with respect to other countries like Malaysia. According to National Crime Records, a recent statistics says 2,22,446 unidentified bodies recorded in India with 102 bodies per day. In Tamil Nadu there are 52,576 unidentified bodies and 15 bodies per day who again become unidentified missing people. In India it is usual to dispose the bodies that are not claimed upto 72 hours and thus it is a silent mass disaster that the government seriously should look into.

Significance of Identification

If the body remains nameless, case remains unsolved and suspect escapes which is illegal. The identification of a person plays a vital role in any criminal investigation. Declaration by surviving individual

about his/her dead partner is necessary for remarriage in certain religion. The identification of dead person is necessary for insurance and other financial claims. Identification also needed for their last rights whether to be buried or cremated, particularly in few countries where the identity is to be guaranteed before burial within their boundaries. The identification of persons stretched out for a long time gives lawfulness and restfulness of family members, relatives and friends of the deceased (**Pretty and Sweet, 2001**). Thus identification of unknown bodies are essential for justice and humanitarian reasons. Interpol standing committee also recognizes that for legal, cultural and other reasons. Humans have rights not to lose their identity after death and that identification of victim may be a vital importance to police investigation. Interpol further says dental records are primary identifiers along with fingerprints and DNA analysis (www.interpol.int).

Dental Records Collection

The dental records must contain patient's chief complaints, written notes, charts, diagrams, medical and dental history, social history, x-rays whether film/digital, other images like MRI, CT, CBCT, clinical photographs, videos, study models, referral letters, result of special test, lab and drug prescription (**Hinchliffe, 2011**).

Dental records should be collected following a protocol making it an official document with following information:

Teeth present and missing, tooth type, tooth position, crown morphology, crown pathology, root morphology and pathology, pulp chamber and root canal morphology and pathology, periapical pathology, dental restoration, prosthetic treatment, periodontal disease, anatomical features like maxillary sinus, anterior nasal spine, mandibular canal, coronoid and condylar process, TMJ and other pathologies like developmental cyst, salivary gland pathology, bone disease and surgical treatment (**Pretty and Sweet, 2001**). Thus along with this record, dental institution, dental colleges and private dental clinics should update recent treatments done to their patients.

Edentulous patient can be identified by palatal rugae, denture markers, implants and OPGs. People with good oral health, their dental cast can be fabricated, stored digitally and updated periodically.

Method of identifying missing people

PHASE I: Acquisition of dental records of those reported missing from INDD.

PHASE II: Collection (profiling) of dental data from unknown bodies.

PHASE III: Comparing of dental data obtained in Phase I and II.

Structure of INDD

A National Dental Registry (NDR) should be formed by the Indian government incorporating within the National Dental Portal which gives access to INDD. This portal can be accessed by dental institution, dental colleges, private dental clinics, government dental hospitals and respective governing agencies. Restriction, limitation, misuse and security of the portal should be taken care by the government. The system should be under continuous monitoring of operation, calibration, implementation, verification of functionality by the government authorities.

Checklist to Facilitate Collection of AM Dental Data

Medical/ Dental data:

1. Hospitalization
2. Surgical treatment
3. Scars, tattoos
4. Dental treatments
5. Photographs displaying dentition
6. Previous orthodontic appliance
7. Bite plates from bruxism
8. X- rays
9. Work/ car accidents

Habit information:

1. Cigarettes, cigars, pipes
2. Food intolerance
3. Nutritional supplements
4. Frequency of medical and dental check ups
5. Blood donation
6. Toothbrush
7. Drugs/ medicines
8. Friends
9. Working companions

Monitoring of Missing Persons and Statistics

1. Total people missing
2. Increase in missing person per in travel
3. Total missing children
4. Missing children per semester
5. Motivation for missing
6. Missing by region
7. Old people missing, time in travel and motivation.

Recommendations

1. A missing person association can be formed by family members, relatives and friends.
2. Current cases should be solved within 72 hours.
3. Old cases can be given a deadline and proceeded accordingly.
4. Pattern of missing and its statistics can be monitored
5. Forensic odontologist can be deployed in AM dental data collection along with police.
6. General dentist must have adequate knowledge in forensic odontology (Nuzzolese, 2013).

Conclusion

This paper highlights the need for INDD to assist in the identification of unidentified human remains whose identity might not be disclosed. The NDR could solve those existing deficiencies within missing person investigations, developing a holistic approach providing an opportunity for true transformation in its system. Forensic dental identification is an easier, timely, cost effective and reliable method for the government. Hence government of India should evaluate setting up a NDR with undoubtedly benefits for our society.



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