

Tooth for truth (The glory of forensic dentistry)



The professional services of dental surgeon is not only examining and diagnosing diseases of mouth and teeth and their treatment, but also includes social obligation to law and justice by giving evidence from tooth and jaw to determine age and gender, identifying living and dead persons, detect criminals and other legal aspects. Dental specialist helps the police, lawyers, investigators, and judges in court of law to restore truth from tooth. Thus, he is an indispensable professional to the government.


Success of Forensic dentistry could be achieved totally only if the dental specialist and the dental institutions maintain antemortem records of their own patients with information like name, age, gender, number of teeth present, filled teeth, dentures and other restorations, morphological variations of teeth and mucosa with photographs and radiographs, etc. This antemortem record will help to identify deceased persons and criminals by comparing with the postmortem record which will be prepared during criminal investigation, examining deceased person in homicide and dead persons in mass disaster.

Dental specialist as a Forensic odontologist has the following professional and social obligations to law and justice:

1. Analyzing the eruption dates of different teeth, calcification, root formation, and resorption of deciduous roots can help to establish the age of dead person for identification and living person to establish whether the person is juvenile or adult in criminal proceedings. Age can be determined after 20 years with the help of appearance of transparent dentin.
2. Gender of a dead person could be determined by

observing the angle of mandible and lower permanent canine. The angle of mandible is obtuse in females and the lower permanent canine tooth is short and small in females and long and sharp in males. Dental pulp cells of male have XY chromosomes and females have XX chromosomes. Barr bodies in nucleus are seen in females and not seen in males.

3. In identifying the dead person in homicide, suicide, accidents, and mass disasters, examining the deceased persons with postmortem record and comparing the postmortem record with antemortem record would give a perfect identification. Same procedure would be followed for a living individual who disappear due to amnesia. The modern technology of using the DNA finger print analysis in identifying the person by comparing the alleles of DNA of the deceased person with the allele of DNA of blood-borne relations is an accurate methodology of identifying the deceased person.
4. Identification of dead body and human remains is necessary to issue legal certificate of death to claim insurance, bills, business change, remarriage, and burial problem.
5. Bite marks are the injuries caused by the bite of the teeth in skin or mucosa either in living or dead. Bite marks can be caused in the victims during robbery, rape, homicide, and child abuse. Recording the bite marks of victims with models by a dental specialist and recording the biting teeth and bite marks of suspected criminals are the specialized duty of dental specialist to identify the real culprit by comparing the bite marks of victims and the criminals.
6. Lips are the first organs which have the voluntary function of sucking milk from the breast of the mother. The normal lines and fissures in the form of wrinkles and grooves in the lip are called lip prints. Lip prints are recorded in fruits, vegetables, wooden substances, glass, and metal tumblers during robbery and rape. Lip prints are recorded on the surface of the skin as kiss marks. During homicide, robbery, and rape, the lip prints are recorded in wooden substances, glasses, and skin by dental specialist to identify the real culprit by comparing the recorded lip print with that of suspected criminals.

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7. In child abuse, detection of criminals causing physical injury to mouth, teeth, and face of child and causing bite marks to the skin of the child can be successfully done by dental specialist. The dentist plays an important role in civil litigation like negligence, malpractice, and dental fraud.

Forensic dentistry is a fine subject and the dentist has got a great social obligation in law and justice.

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