Editorial

Forensic Odontology- An area unexplored

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Forensic odontology is a branch of science that's deals with the systematic crime investigation which ensures the administration of justice by providing the crucial information about the crime. This special branch provides scientific background and firm base in criminalistics. Forensic odontology also deals with the legal aspects of the professional dental practices and treatment. It pays special emphasis on the use of dental records to identify crime victims or accidents that are required for medico legal cases. It also includes detection and assessment of severity of injuries involving teeth, and its bite marks.

Just like fingerprint search individual has his unique set of teeth that are different and this feature helps us to identify the individuals. Generally during accidents teeth remain unharmed as well as they are the last ones to decompose. DNA analysis of teeth pulp is helpful in identifying corpses too.

Study of bite marks left by criminals on victims' body or on any innate objects like glasses, on the crime scene may help to identify the culprits. DNA analysis of saliva left on bite mark is also of great value. Determined of the deceased corpse's age can be carried by the study of incremental lines that are present on the primary and secondary teeth and also by calcification of roots. Calcospherites fusion in the dentine structure can also help in the determination of age after 21 years when all teeth have erupted. Physiological changes like amount of attrition, resorption and transparency of root, formation of secondary dentine, cementum apposition and periodontitis also help in determination of a person's age. Sex determination can also be carried by DNA analysis of dental pulp and their absolute identification by examining Barr Bodies, Y chromosomes. Forensic odontology may also be sub classified in forensic- odonto-toxicology which deals with cases of poisoning, but this field is yet to gain popularity globally.

Despite this field being of great importance it is still not developed world wide. A number of initiatives need to be undertaken in order to establish forensic dentistry, including mandating dentists with casework experience in this specialty and encouraging them to be a part of investigation and identification teams. There is a need to introduce this specialty in the dental syllabus of all countries and ultimately it is bound to become a separate discipline in dentistry. Forensic odontologists will have a bigger role to play in incidents of mass disasters for identification of the victims as well as to provide an authentic proof in solving many suspicious crimes too.