An Intersection of Oral Pathology and Forensic Odontology

Forensic odontology is the branch of dentistry that deals with the application of dental evidence to the realm of law. The specialty has elicited immense interest and has steadily grown over the past half-century in the industrialised world. In India, the subject is slowly but surely beginning to catch up, with the setting up of an association—the Indian Association of Forensic Odontology—to further the interest of the subject, as well as establishment of exclusive departments in dental institutes. The subject, however, is not yet recognised by the Dental Council of India as a separate specialty, rather its teaching to BDS students has been included under Oral Pathology and Oral Medicine and Radiology.

What draws it close to oral pathology is the use of pathological findings in post-mortem identification, for example, rare occurrences such as dens in dente may assist in confirming identity of the deceased individual with little ambiguity through comparison with dental records.

The use of dental morphological and histological changes is also intimately woven to forensic dental investigation. For example, tooth attrition, secondary dentinal deposition, cementum incremental lines, and sclerotic dentine are widely used in assessing age at death and in the living; tooth size has use in ascertaining the sex of skeletal remains, while numerous dental anatomical features such as Carabelli’s cusp, shovelling and molar cusp number can point towards the geographic origin or ethnicity of skeletal specimens. Also, dental anatomy and the dynamics of jaw movements are integral to investigating human bite marks.

It is, therefore, unsurprising that Oral Pathologists and Biologists have shown keen interest in research and development of this field and made contributions towards its evolution. Forensic odontology associations, both within and outside India, have wide representation of Maxillofacial Pathologists all keen to contribute any which way they can. And that is vital—the endeavour to apply one’s knowledge and expertise to a parallel or related field and be part of inter-specialty collaboration and cooperation would ensure the continued progress of such new specialties.