The role of charting dental anomalies in human identification

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An increase in awareness on dental hygiene among people through the years consequently provoked a significant decrease in the occurrence of dental caries, and thus, a decrease in the number of dental restorations. This improvement of oral health affected the comparative dental analysis using dental treatments for human identification; hence, existing dental features or anomalies could act as unique identifying features. This study evaluated the awareness of dentists on charting dental anomalies by a dental charting task and addressed the importance of maintaining dental records for forensic and medico-legal purposes. An online survey-based study was conducted on 101 dentists practicing in the South Indian states of Karnataka, Kerala and Tamil Nadu through Google Forms (© 2019 Google Inc., v 0.8). Results showed that clearly visible anomalies such as midline diastema, crowding, and transposition were mentioned by only 11.8 %, 22.7 % and 5.9 % of the respondents respectively. 17.8 % misnamed the accessory cusp on a premolar as a Talon's cusp. The awareness of Forensic odontology among dentists was exceptional but the dental charting needs improvement. A "Scale of Forensic Significance of Dental Features" was created to interpret the accuracy in recording anomalies which comprised of three parameters namely: Incorrect answer(0 %), Partially Correct answer(50%) and Accurate answer(100%). They classify different levels of forensic significance of dental findings in human identification. Only a few respondents submitted an Accurate or a Partially Correct answer and, as a result, an Atlas of Dental Anomalies (www.theatlasofdentalanomalies.com) was created to rectify this poor pattern of dental charting.



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Dr. Jayakumar is a young Indian Forensic Odontologist/ Dentist from the UK who completed her Bachelor of Dental Surgery in India in 2017 and holds a Master's in Forensic Odontology, Scotland with a distinction in 2019. She is currently working in the field of research, publishing articles and conducting lectures in Forensic Odontology. Also, a keynote speaker for international conferences held in the UK, Europe, Middle East and South Asia, she is a prospective PhD candidate in the UK providing an expert-level opinion in cases of human identification, age estimation, bitemark analysis and dental malpractice.