G1 Migratory Flows and Unaccompanied Minors: The Age Assessment Protocol of the University of Turin (Italy)

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After attending this presentation, attendees will learn the multidisciplinary age assessment protocol proposed by the Medicolegal Department of the University of Turin (Italy) to allow urgent age assessment in circumstances in which law enforcement officers detain individuals of indeterminate age.

This presentation will impact the forensic science community by confirming the importance of dental age methods in the diagnostic procedures targeted at age estimation of unaccompanied minors.

The Italian legislation is paying special attention to the protection of unaccompanied minors. Once their age as a minor is ascertained, unaccompanied minors cannot be subject to expulsion and acquire the right to a residence permit, which can be converted at the age of 18 into a permit for study, employment or self-employment, or health reasons. The growing phenomenon of migratory flows extends beyond anti-terrorism and border control aspects, resulting in the necessity of ascertaining the age of a large number of unaccompanied minors who do not carry valid documents that certify their age. The Forensic Medicine Unit of the University of Turin (Italy) has signed a memorandum of understanding with the public prosecutor's office at the Juvenile Court of Turin to allow urgent age assessment in circumstances in which law enforcement officers detain individuals whose majority or minority is unknown.

The goal of this research is to compare the forensic odontological methods developed by Olze, AlQahtani, and Cameriere against the overall multidisciplinary evaluation of the alleged minor age of unaccompanied foreign minors to determine the forensic significance of dental methods, including aspects such as digital transmission of panoramic radiographs.

Materials and Methods: The protocol applied for age assessment and majority prediction requires the multidisciplinary adoption of several methods according to the following scheme: preliminary medicolegal and radiological assessment of the wrist; possible dental, pediatric-auxologic, and psychological evaluation, following a diagnostic algorithm based on criteria of progressive invasiveness.

A review was performed on the medical records of age assessment visits conducted over a sample of 68 foreigners without a valid birth certificate or ID documentation. The group was also kept under observation for the period of February to June, 2017, and the full technical protocol of dental examination and panoramic radiographs was performed. The results obtained from the entire multidisciplinary diagnostic process were compared with the age assessment methods performed by applying the Olze, AlQahtani, and Cameriere methods individually through Orthopantomograph (OPG) radiographs transmitted remotely for evaluation by the relevant forensic odontologist consultant.

Results: For ten subjects, the match between the alleged and declared age and the ascertained age could be confirmed. Of the 68 subjects, 45 proved to be of age according to the medical records released by the medical examiner following protocol (physical examination, left wrist radiographs using the FELS and Greulich and Pyle methods, oral cavity inspection, and OPG evaluation according to the AlQahtani and Olze methods), whereas 17 proved to be less than 18 years of age and more than 14 years of age.

The dental age estimation against OPG of the lower third molars according to the Olze, AlQahtani, and Cameriere methods exhibited a match with the estimated age through the multidisciplinary procedure with a P-value lower than 0.05.

Conclusions: This sample highlighted the widespread tendency of immigrants to declare an age lower than their actual age, resulting in the legal requirement of attaining majority estimation through a reliable multidisciplinary protocol from an ethical and technical point of view. It is no longer suitable to entrust this majority/minority estimation only to individual assessment methods. It is also essential to integrate the diagnostic process with the evaluation of the dental maturity and eruption of the entire set of teeth and the systematic execution of OPGs submitted to at least two forensic odontological methods for evaluation, including digital transmission of radiographs to the relevant forensic odontologist consultant. Considering the growing number of self-styled foreign unaccompanied minors, this study believes that the protocol employed could represent a valid model that can be deployed across the country, due to its reliability, cost-effectiveness, and timeliness.

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