

ABSTRACT

This thesis deals with estimation of age in children by using radiographs of their permanent teeth. Specifically aim of this thesis is effort to verify the accuracy and reliability of the use of one particular method and its possible use for the purposes of bioarcheology. Generally speaking, in paleoanthropology and bioarcheology are most often used two methodological approaches. One method is proposed by Demirjian and coworkers (1973) and its various modifications, the second approach is the method proposed by Moorrees and coworkers in 1963. Both methods are based on the evaluation of the degree of mineralization of the teeth, and tooth mineralization stages are compared with reference data in order to estimate dental age.

The advantage of the method according Demirjian and coworkers (1973) is the fact, that it has been modified and tested only in the last decade in almost twenty different populations and demonstrated its viability especially in clinical and forensic sciences. Its disadvantage is the necessity of preservation of several mandibular teeth simultaneously, and this condition is often not satisfiable in bioarcheology (Brůžek et al. 2005). For these reasons, in bioarcheology is preferred method proposed by Moorrees and coworkers (1963), because it allows the estimation of life expectancy in the presence of a single tooth, and therefore the method proposed by Moorrees and collaborators is the concern of this thesis.

It is desirable that, after more than half a century, to expand knowledge of variability in the degree of mineralization of teeth due to calendar age using the method by Moorrees and colleagues. It is known that mineralization of the teeth subject to influences such as secular trend (Monge et al. 2007) and the observed differences between populations and indicators according Moorrees it is unknown.

Keywords: estimation of age - dental age - mineralization and eruption of the teeth - Moorrees et al. (1963) - panoramic radiographs