



Physical Anthropology Section – 2003

H22 Lamendin's and Prince's Dental Aging Methods Applied to a Bosnian Population

Nermin Sarajlic, MD MSc, Eva E. Klonowski, PhD, Piotr Drukier, MSc, and Richard J. Harrington, PhD, International Commission on Missing Persons, Alipasina 45a, Sarajevo, Bosnia and Herzegovina*

This presentation will evaluate the application of simple dental aging techniques to a Bosnian population. This research project tests the accuracy of Lamendin's aging method and Prince's modification of the Lamendin method as applied to a Bosnian population. The sample consists of 400 teeth (incisors and canines) from 100 males of known age.

Identification of skeletal remains benefits from the use of accurate aging techniques. One of the more promising of recently developed techniques is the Lamendin method for age determination of adults from single-rooted teeth (Lamendin et al 1992), as derived from a French population. The primary components of this method are measurements of periodontosis and transparency of the root. Lamendin proposed the following simple equation for age assessment: $A = 0.18 \times P + 0.42 \times T + 25.53$ (where: A = age in years, P = periodontosis height / root height x 100 and T = transparency height / root height x 100).

While other, traditional aging techniques have limited accuracy for aging remains of older individuals, several studies have shown that Lamendin's method yields very good results, especially for individuals between ages 40 – 70.

Prince (2002) modified Lamendin's method by adding root height (RH) to the equations for white and black males and females. The equation for white males is: $A = 0.15 \times (RH) + 0.29 \times P + 0.39 \times T + 23.17$. Prince claimed that inclusion of root height reduced the mean difference and therefore improved accuracy.

Skeletal remains found in mass graves in Bosnia and Herzegovina present additional problems that can be addressed with improved age determination techniques. The remains are often commingled or incomplete, with skulls often separated from the rest of the skeleton. Therefore simple, quick, and accurate dental aging methods may facilitate the reassociation of crania and mandibles to postcranial elements.

This research conducted on Bosnian remains from the recent war (1992 – 1995) might be helpful not only in the identification of the missing from the war, but for new forensic cases in Bosnia and Herzegovina as well.

Forensic Anthropology, Human Identification, Dental Aging Technique