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FEATURE ANALYSIS OF THE PUBIC SYMPHYSIS

By

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Abstract

This study examines to what extent the individual morphological features of the pubic symphysis are correlated with age-at-death and seeks to determine if specific features are more useful than others in age-at-death estimation. A known-age sample consisting of 156 female and 168 male pairs of pubic bones from the Forensic Science Center in Phoenix, AZ was evaluated. Statistical analysis of the total sample showed a stronger positive correlation between age-at-death and three features: bone quality, rim formation, and ventral ligamentous outgrowths. In general, results indicate that ossific nodules, the ventral hiatus, and dorsal lipping have the lowest values and are not always significantly associated with age-at-death. Intra-observer results for scoring were mostly consistent and there was good agreement between four observers. These results support the previously established idea that certain features are more strongly correlated with age-at-death than others. However, bone quality was not one of the elements strongly focused on in established pubic symphysis methods. The strong correlation of this element with age-at-death indicates that the future of the pubic symphysis method should expand beyond the traditional analysis of pubic symphyseal face morphology to include evaluation of age-related structural changes to the pubic bone.