Gender determination through the Calcaneum Measurements

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The gender determination in human skeletons identification is a very important tool witch allows the Forensic doctor and the Forensic Dentist a reduction in the total amount of individuals to be identified. Such determination can take place through qualitative and quantitative methods, both of great relevance, allowing standardization and possibility of reproducibility in any region of the globe.110 pairs of the calcaneum bone (well bones), 55 masculine pairs and 53 feminine, with age rate above 20 years old, whose had been buried for 3 years were used in this study. The dimensions used were the height, width and length as well as the length of the sub heel articulation in parallel axle to talocalcaneonavicular joint and the chord length referred to the arch formed by talocalcaneonavicular joint. 87.27% from the feminine pieces were correctly classified as were 90.91% from the masculine ones. The results allowed the standardization of methodologies to gender identification through logistic regression of the calcaneum measurements, discriminating function analysis and the reliability range media. These methodologies provided a high rate of accuracy witch allows the identification of the gender in future evaluations with a great deal of statistic significance.