Musculoskeletal markers in the toes: population data from early twentieth century Lisbon, Portugal

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Poster

The purpose of this study is to determine the frequency of ridges of tendon attachment (digital flexors) on the medial and lateral sides of the proximal phalanges of the lateral four toes, a rarely reported skeletal change. A sample of Portuguese adult identified skeletons (females=103; males=102) from the Lisbon collection was selected. Ages range from 18 to 94 years. All available phalanges were observed macroscopically for the presence/absence of tendon ridges. Prevalence was calculated as the percentage of individuals showing ridges at least in one phalange. Frequency was calculated as the percentage of phalanges with ridges. Both prevalence and frequency tend to be higher in males (males: prev.=70.6%, freq.=46.9%; females: prev.=59.2%, freq.=36.6%) and older age groups (females: [18-39] years: prev.=26.7%, freq.=13.2%; [40-59] years: prev.=65.2%; freq.=32.1%; ≥60 years: prev.=64.6%, freq.=43.9%), but do not differ between occupational categories (males, manual: prev.=68.1%, freq.=47.0%; non-manual: prev.=72.7%, freq.=46.9%). Since phalanges could not be sided, lateral differences were not determined. The detection of these ridges is heavily influence by preservation and completeness of skeletons. In addition, these markers probably represent a structural reinforcement of the diaphysis and can result from a combination of activities which involve flexing of the toes. This may make these changes unreliable as sources of information about any specific activity. Nonetheless, results indicate a relatively high frequency of these changes in a modern type urban population, which may serve as comparative data for other contemporaneous or archaeological populations and aid in the future understanding of its origin and development.

Key Words: foot phalanges; fibrous entheses; Portugal; early 20th century; population data