

Researching ancient behaviours: a biocultural approach to the study of musculoskeletal stress markers (MSM) in a skeletal sample from Constância, Portugal (14-19th centuries)

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Paleopathological studies have revealed a connection between some types of bone lesions and the stress produced during the performance of certain activities. The biocultural approach here presented aims to combine the skeletal evidence, through the study of musculoskeletal stress markers (MSM) in a sample from both sexes (N=64) exhumed from the Constância necropolis (14th-19th centuries), with historical, ethnographic and economic data, indicating that fishing and ship building were dominant occupations among the inhabitants. Thirty-six body MSM sites were scored using the method of Mariotti *et al.* (2004). In the upper limb, the MSM mean scores were higher in females than males. The opposite was noted for the musculoskeletal insertions of the lower limb. In males, alterations at the costoclavicular ligament predominate, while in females those of the *supinator* muscle were most frequently observed. The lower limb MSMs most affected were the *quadriceps femoris* muscle in males, and the *gluteal* muscles in females. The sexual dimorphism was higher in females with respect to upper anatomical sites. Age at death proved to be a contributing factor to increased MSM values. Significant results were obtained in male individuals in the musculoskeletal groups involved in rowing, revealing a possible connection with the historical records which refer to man being actively involved in this activity. From the MSM results, as well as from some degenerative joint disease data, it is possible to conclude that the ancient inhabitants of Constância would have been subjected to acute episodes of biomechanical stress.

Key Words: paleopathology; musculoskeletal insertions; bone outgrowths; interdisciplinary approach; occupation

Mariotti V, Facchini F, Belcastro MG. 2004. Enthesopathies: proposal of a standardised scoring method and applications. *Collegium Antropologicum*, 28: 145-159.