

BIOARCHAEOLOGICAL EVIDENCE OF RHIZARTHRISIS IN INDIGENOUS POPULATIONS FROM GRAN CANARIA (CANARY ISLANDS, SPAIN)

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Background: Bioarchaeological studies have traditionally devoted limited attention to the palaeopathological analysis of hand bones, despite their considerable value for interpreting degenerative processes, biomechanical stress, and functional limitations in ancient populations. Within the Canary Islands, rhizarthrosis has rarely been documented in archaeological contexts, and detailed descriptions based on dry bone analysis remain scarce.

Objective: This study aims to identify and describe cases of rhizarthrosis in pre-Hispanic individuals from Gran Canaria (Canary Islands, Spain), assessing its bioarchaeological relevance and its implications for manual activity and functional impairment.

Subjects and methods: A macroscopic osteological analysis was conducted on hand remains recovered from several archaeological sites in Gran Canaria. Particular attention was paid to degenerative changes affecting the trapeziometacarpal joint between the trapezium and the first metacarpal, located at the base of the thumb. The degree of joint degeneration was evaluated through morphological observation and compared with established clinical classifications.

Results: The preliminary analysis identified at least ten individuals presenting unilateral or bilateral rhizarthrosis with different degrees of severity consistent with the classification proposed by Richard Eaton and Lewis Littler, 1973. Observed alterations included joint surface degeneration, osteophyte formation, deformation of the articular surfaces, and advanced degenerative remodelling. Potential associated factors include ageing, repetitive manual activities involving intensive thumb use, biomechanical overload, and possible previous trauma.

Conclusions: Rhizarthrosis represents one of the most significant degenerative pathologies affecting the hand within the osteoarchaeological record of Gran Canaria. Its study provides valuable information regarding manual dexterity, habitual activities, and functional limitations among the indigenous populations of the Canary Islands, highlighting the importance of incorporating hand paleopathology into future bioarchaeological research.

Keywords: Rhizarthrosis; Bioarchaeology; Paleopathology; Canary Islands; Hand osteology.

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