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Radiologic evaluation and clinical effect of calcification in medial epicondylitis

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Background: Although most radiologic findings of medial epicondylitis (ME) are normal, up to 25% show calcification, and little is known about the clinical relevance of soft tissue calcification in ME. The purpose of this study was to reveal the characteristics of calcification in ME, and to identify their clinical relevance.

Methods: This study included 187 patients (222 elbows) who were diagnosed with ME. We classified calcification according to its anatomic location, and further evaluated its distribution. Logistic regression analysis was performed to calculate the odds ratios and 95% confidence intervals for possible factors that may affect calcification in ME: age, sex, laterality, hand dominance, visual analog scale (VAS) pain score, Mayo elbow performance score, symptom duration, history of steroid injection, number of steroid injections, concomitant ulnar neuropathy, and treatment method in terms of conservative treatment or surgery.

Results: In a total of 222 elbows, 53% (118 of 222 elbows) showed calcification in radiologic findings. The VAS pain score, number of steroid injections, and concomitant ulnar neuropathy were significantly associated with calcification in ME. Calcification was most commonly identified at the anatomical insertion site of the common flexor tendon (33%), followed by the pronator teres (18%), and the medial collateral ligament (10%). Of the total cases of calcification, 45% were distributed at multiple sites, and age was strongly associated with multiple distributions.

Conclusions: Calcification in ME was more commonly identified than previously reported and was distributed over a relatively broad area. Calcification was associated with a higher VAS pain score, history of steroid injection, and combined ulnar neuropathy. The anatomical insertion site of the common flexor tendon most commonly showed calcification, and age was a strong indicator of a broad distribution of calcification.

Biography

Hee Dong Lee is currently working in the department of Orthopaedic Surgery at Veterans Health Service Medical Center, Gangdong-gu, Republic of Korea. His research interests include Surgery, Orthopaedic Surgery, and Osteoporosis.

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