Abstract

Background: Pellegrini’s surgical technique is the most useful for thumb carpometacarpal joint osteoarthritis. The purpose of this paper is to describe the technique of a modified version using a bone block in the tunnel through which the flexor carpi radialis tendon is passed (BBTI).

Methods: Case series of patients diagnosed with osteoarthritis of the thumb carpometacarpal joint, in stage II or higher based on Eaton’s classification, that were intervened using the BBTI technique for a 2-year period. Grip and pinch strength, range of motion, and 1–2 metacarpal angle were evaluated. Pain and function were measured using the visual analogue scale and the Disabilities of the Arm, Shoulder and Hand (DASH) scale.

Results: The study included 16 cases in 14 patients (11 women and 3 men), with an average age of 55.7 ± 7.1 years. Encouraging results were obtained, with an average DASH score of 24.3 ± 17.9 and a minimum VAS pain score. A total of 58% showed a grip strength of over 80% and the postoperative movement was equivalent to the contralateral limb. No cases of
infection were reported, and only two minor complications were observed.

Conclusions: The BBTI technique is a surgical option that incorporates an interference screw, offering good functional results for managing osteoarthritis of the thumb carpometacarpal joint, with a similar complication rate to that of the original technique.

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