
SCAPHO-TRAPEZIO-TRAPEZOIDAL ARTHRODESIS FOR SCAPHO-TRAPEZIO-TRAPEZOIDAL OSTEOARTHRITIS

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Scapho-trapezio-trapezoid arthrodesis was originally performed for the treatment of scapho-lunate instability. However, only a few publications have described this technique for treatment of osteoarthritis of the scapho-trapezio-trapezoid (STT) joint. The purpose of this paper is to analyze the results of triscaphoid arthrodesis for STT osteoarthritis with a long-term follow-up. Thirteen cases of osteoarthritis of the STT joint in twelve patients, all treated by STT arthrodesis, were reviewed with an average follow-up of 60 months. Pain was classified according to Alnot's classification: eight patients were classified as grade III, two as grade IV and two as grade II. The average preoperative range of motion of the wrist was 51 degrees for flexion, 39 degrees for extension, 9 degrees for radial deviation and 28 degrees for ulnar deviation. Grip strength was compared to the contralateral side. Radiographic changes were classified according to Crosby's classification, including sublevels for carpal instability. Four wrists were classified 2a and nine wrists were classified 2b. The average radio-lunate and scapho-lunate angles were 14 and 45 degrees respectively. Pain was improved in all patients ($P = 0.05$) all of whom were subjectively satisfied. Strength and range-of-motion did not statistically decrease after STT arthrodesis except for wrist extension ($P = 0.03$). Radio-lunate and scapho-lunate angles were unchanged in five patients and improved in five patients. There were four non-unions of whom two patients without pain were not re-operated. The other two were re-operated with the same technique leading to fusion. Scapho-trapezio-trapezoid arthrodesis is an efficient procedure for STT osteoarthritis with regard to pain reduction. Strength and global range-of-motion are not modified by this procedure. Moreover, as it limits carpal instability, this procedure is preferable in active patients.