The Clinical Effect of Concomitant Scaphotrapeziotrapezoidal Osteoarthritis on the Surgical Management of Carpometacarpal Arthroplasty for Basilar Thumb Osteoarthritis

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INTRODUCTION:
We hypothesized that additional surgical treatment for concomitant scaphotrapeziotrapezoidal (STT) osteoarthritis would not be necessary for patients undergoing carpometacarpal (CMC) arthroplasty for basilar thumb osteoarthritis.
The study aimed to investigate the impact of concomitant STT osteoarthritis on the surgical management of CMC arthroplasty for basilar thumb osteoarthritis.
METHODS: Four fellowship-trained orthopaedic surgeons at a single institution compiled a list of patients who underwent CMC arthroplasty over two years. We retrospectively assessed CMC osteoarthritis using the Eaton-Littler (EL) classification system and preoperative radiographs. We also cataloged STT osteoarthritis using preoperative radiographs and the classification system White et al. described in 2011. We studied the length of follow up and any surgical treatment for STT arthritis during this period. We used spreadsheet functions to calculate measures of central tendency and perform statistical analysis via Student t-testing.
RESULTS:
Our study included 137 patients. Radiographs revealed that twenty-six patients had EL class 1 CMC osteoarthritis, fifty-three had EL class 2 CMC osteoarthritis, forty-seven had EL class 3 CMC osteoarthritis, and eleven had EL class 4 CMC osteoarthritis. Eighty patients showed no signs of STT osteoarthritis, while thirty-eight had class 1 STT osteoarthritis, twelve had class 2 STT osteoarthritis, and seven had class 3 STT osteoarthritis. The average follow-up period was 139 days, during which none of the patients required surgical treatment for concomitant STT osteoarthritis after CMC arthroplasty.
DISCUSSION AND CONCLUSION:
Radiographic signs of STT osteoarthritis were present in 42% of patients undergoing CMC arthroplasty. Of these, 38 had class 1 STT osteoarthritis, 12 had class 2 STT osteoarthritis, and seven had class 3 STT osteoarthritis. No CMC arthroplasty patients required additional surgical treatment for concomitant STT osteoarthritis. No subsequent surgeries were necessary over the average follow-up period of 139 days.
CMC arthroplasty effectively managed the condition, regardless of the severity of STT osteoarthritis, without needing additional surgical intervention.