Hypothesis: A variety of treatment options exist for degenerative joint disease at the proximal interphalangeal (PIP) joint. Long-term outcomes have rarely been reported. We hypothesize that the Swanson silicone arthroplasty for the PIP joint provides durable, long-term pain relief in osteoarthritis.

Methods: Thirty-eight joints (22 patients) underwent PIP joint Swanson silicone arthroplasty for osteoarthritis. All patients returned for follow-up evaluation at an average of ten years following arthroplasty. Subjective outcomes were assessed utilizing the Quick DASH, Visual Analog Pain Scale, and Likert questionnaire scores. Clinical and radiographic objective data was collected, by measuring range of motion, coronal plane deformation and assessing final radiographs.

Results: Silicone arthroplasty at the PIP joint provided consistent pain relief. The average Quick DASH score was 17 and the average pain VAS score was 0.4. The Likert questionnaire revealed that on average patients either agreed or strongly agreed that they would have surgery again, recommend surgery to another patient, and were satisfied at an average of 10 years postoperative. Furthermore, patients had neutral responses when they rated appearance, functional improvement, and range of motion. Objectively, range of motion (flexion arc of 50°) did not significantly change from the preoperative flexion arc (55°) (p>0.05). Radiographically, 31 implants had implant deformation on radiographs and 21 implants had an implant fracture. There were 3 revisions for symptomatic implant fractures and one implant removal for infection.

Summary: Despite unchanged range of motion and considerable radiographic implant deformation or fracture, patients obtained consistent pain relief and satisfaction. Furthermore, there was no correlation between radiographs and satisfaction. With an implant survivorship of 90% at average of 10 years postoperatively, silicone implant arthroplasty remains our treatment of choice for the symptomatic osteoarthritic PIP joint.

References:


♦ Nothing of financial value to disclose