Hawaii Orthopaedic Association
36th Annual Combined Orthopaedic Spring Symposium
April 22-23, 2022
Prince Waikiki

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COMPARISON OF EARLY FAILURES AND PATIENT REPORTED OUTCOMES BETWEEN PRESS-FIT AND CEMENTED TKA

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INTRODUCTION: Although cemented implants have been the gold standard in total knee arthroplasty (TKA) for the past three decades, shifts in younger patients requiring TKA have raised concerns for decreased integrity at the cement-bone interface. Press-fit implants have been introduced to minimize the cement-associated risk for loosening. However, press-fit implants have not demonstrated lower rates of early failures. The purpose of this study was to evaluate patient reported outcomes and rates of early failure (<1 year) between press-fit and cemented TKA.

METHODS: A consecutive cohort of 129 cemented and 95 press-fit TKA patients were prospectively evaluated. Pre-operative patient demographics were collected. Knee Injury and Osteoarthritis Outcome Score for Joint Replacement (KOOS JR), Patient-Reported Outcomes Measurement Information System (PROMIS) Global Physical Health (GPH) and Global Mental Health (GMH) and satisfaction (very satisfied, satisfied, unsatisfied) were collected pre-operatively and post-TKA at six weeks, six months, and one-year. Revisions, manipulation under anesthesia (MUA), and other complications were evaluated with a minimum one-year follow-up.

RESULTS: There were no differences between groups regarding KOOS JR, PROMIS GPH, PROMIS GMH, or satisfaction throughout the year following surgery. At one-year, 80.6% and 70.9% of patients reported “very satisfied” and 12.9% and 12.6% reported “satisfied” in the cemented and press-fit groups, respectively. There were no revisions. The rate of MUA was similar for cemented (6.7%) and press-fit (10.4%) groups. There were no differences in complications. There were four deep vein thromboses (2.2%), one infection (0.6%) and one pulmonary embolism (0.8%) in the cemented group, and one fracture (0.7%) in the press-fit group.

DISCUSSION AND CONCLUSION: Without differences in clinical or patient reported outcomes between cemented and press-fit implants, these results would suggest both implant designs are sufficient for TKA. Furthermore, similarities in complications between cemented and press-fit groups support previous research on the latest generation of press-fit prosthesis.