

Midterm clinical performance of a tapered wedge femoral stem



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Disclosures:

Dr. Mittal is a paid consultant for Stryker

Manoshi Stoker, Ahmad Faizan and Jianhua Shen are Stryker employees

Introduction

- Accolade II stem was designed using a large CT database to improve proximal femoral fit¹
- Early radiographic data showed improved fit compared to older generation stems²
- Previous study showed reduced incidence of periprosthetic fractures³
- Reduced early adverse events in Dorr C femurs⁴
- The objective of this study was to longitudinally follow patients to characterize
 - Survivorship
 - Reasons for revision
 - Adverse events
 - Patient reported outcome measures

1- Faizan et al. Development and verification of a cementless novel tapered wedge stem for total hip arthroplasty. J Arthroplasty. JoA 2015

2- Issa et al. Radiographic fit and fill analysis of a new second-generation proximally coated cementless stem compared to its predicate design. JoA 2014

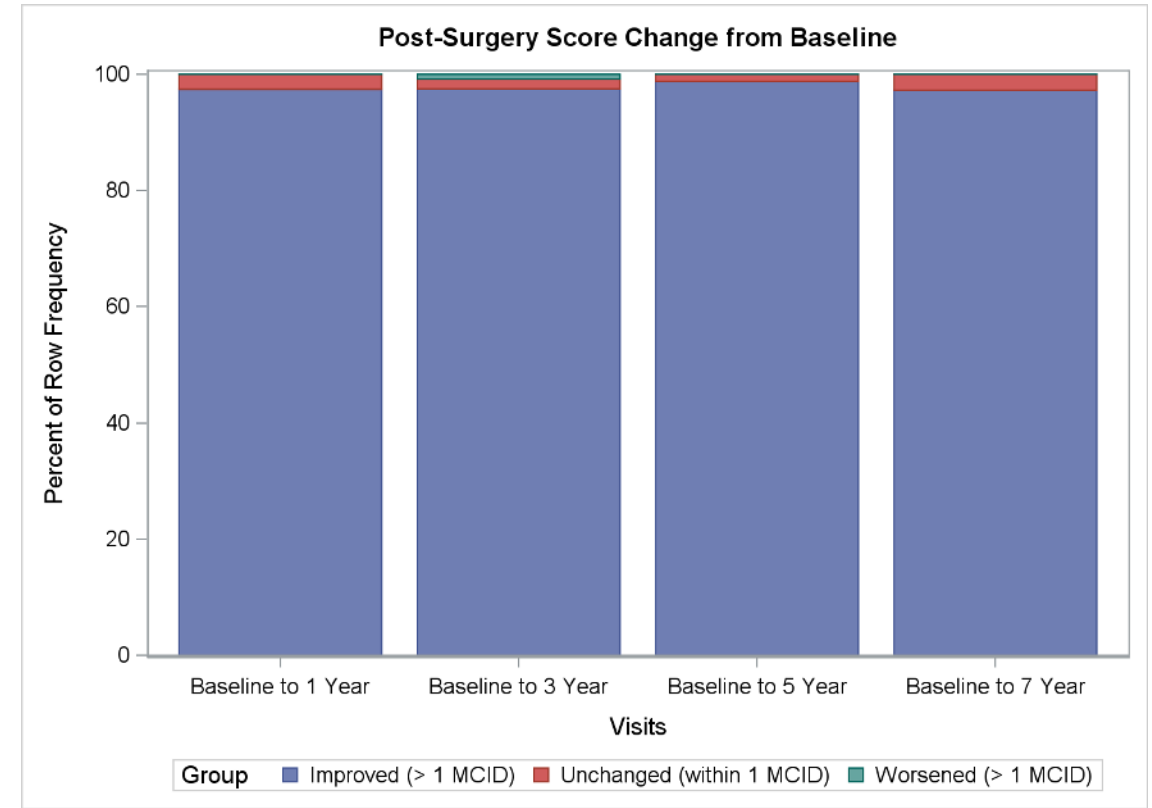
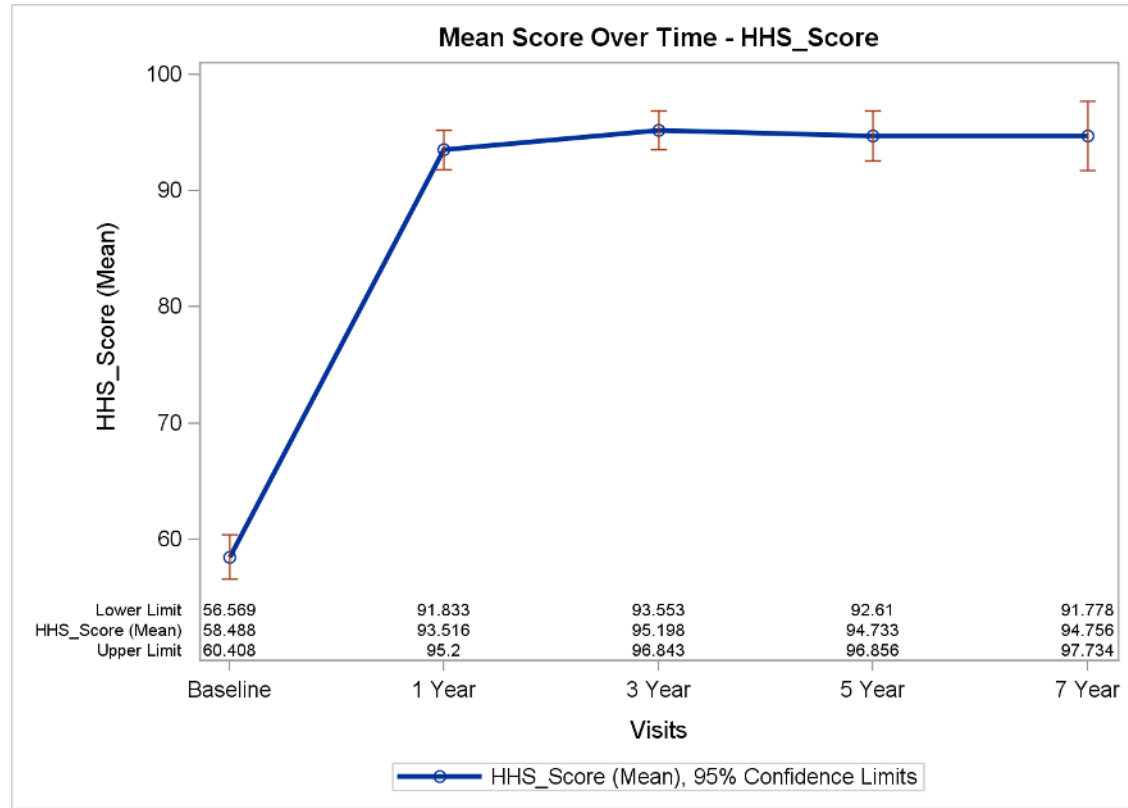
3- Fleishman et al. Reduced Incidence of Intraoperative Femur Fracture With a Second-Generation Tapered Wedge Stem. JoA 2017

4- Lindner et al. Cementless tapered wedge stems in patients undergoing primary total hip arthroplasty with Dorr C bone—are complication risks increased? Ann Transl Med 2019

Methods

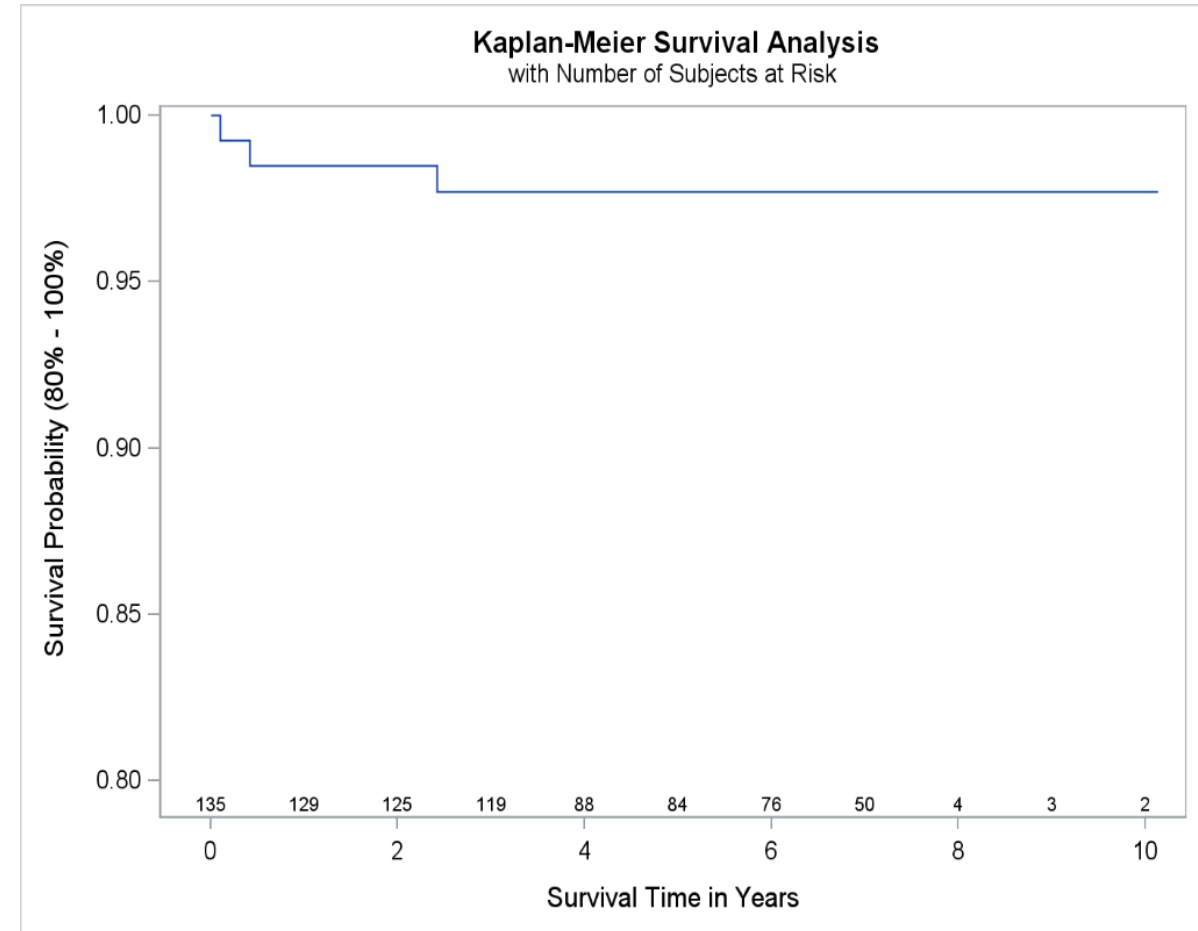
- 135 THA patients from March 2012 through February 2015 for end stage osteoarthritis
- Mean age: 59.73 ± 8.01 years, mean height: 172.3 ± 9.4 cms, mean BMI: 27.5 ± 3.6 , and 53.3% female
- Outcome measures: EQ5D, Oxford Hip Score (OHS) and modified Harris Hip Scores (HHS) pre-operatively, and post operatively at 1, 3, 5, and 7 year follow up
- Minimal Clinically Important Difference (MCID) was determined for all patient reported measures
- Kaplan-Meier Survival curve was established for implant survivorship.

Results



Results

- Three revised resulting in 97.6% all cause survivorship at 7 years
- One patient suffered a traumatic fall within a month postoperative (stem revised)
- Two patients had reoccurring dislocations within the first 2 years following surgery (stems retained during revision)



Conclusions

- The CT based stem design which was previously shown to have better radiographic fit and reduced periprosthetic fracture demonstrated excellent survivorship and clinical outcomes at 7 years follow up in this patient cohort