

GENESIS II — JUST ANOTHER TOTAL KNEE REPLACEMENT?

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INTRODUCTION: Primary total knee replacement is a successful procedure for end stage osteoarthritis of knees. Genesis II (Smith & Nephew) is a posterior stabilised prosthesis allowing high flexion. The instrumentation and prosthesis were introduced in Hong Kong since 2011. This study aims to assess the clinical and radiological outcomes of this prosthesis

MATERIALS AND METHODS: Patients receiving TKR using Genesis II design from 2011 to 2013 were included. The demographic data, Knee Society Knee Score (KSKS) and Knee Society Function Score (KSFA) was collected. The data was compared with a historical control using high flex design. The coronal and sagittal alignment of the components was measured radiologically.

RESULTS: Eighty-six patients with 110 TKR using Genesis II performing from 2011 to 2013 were included. Seventy-eight patients suffered from primary osteoarthritis. The average age at operation was 71 (range 54 - 90). The average operative time was 90 minutes (SD=22). The latest KSKS and KSFA improved from 43 to 94 ($p<0.05$) and from 40 to 55 ($p<0.05$). The maximum knee flexion improved from 101 to 103 degree ($p>0.05$). Comparing with historical control using high-flex design, there was no significant difference in the degree of maximum knee flexion. The postoperative coronal mechanical alignment was 0.7 degree (SD=6).

CONCLUSION: The short-term clinical and radiological outcomes of Genesis II were good. Further study is required to assess the long-term survivorship.