30-Year Survival of the Oxford Mobile Bearing Unicompartmental Knee Arthroplasty

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Summary: The medial Oxford mobile bearing UKA in this series has excellent 30-year survival results with approximately 80% of patients undergoing a single procedure to successfully treat their knee OA.

Abstract: Unicompartmental knee arthroplasty (UKA) has been described as a pre-total knee replacement, implying that revision within the lifetime of a patient is inevitable. However there are few studies of UKA beyond 25-years after implantation. This study presents the 30-year survival of the Phase 1 Oxford mobile bearing UKA used in the medial compartment.

From a single centre in Sweden the entire series of 125 medial Phase-1 Oxford UKAs (104 patients) performed from 1983-1988 were reviewed at a minimum of 28-years since implantation, for those still alive. The patients had previously been reviewed at 1, 6, 10 and 20 years. The outcome of each UKA was determined, establishing the cause of revision in all patients including those who had died. Failure was defined by revision of any component or patient reported poor clinical outcome at last follow-up for any patient (dead or alive). There was no loss to follow-up.

In the entire series at 28-years 89.6% remained unrevised [13 revisions; component loosening(4), dislocation(3), bearing fracture(2), unexplained pain(2), infection(1) and lateral arthrosis(1)]. Of those still alive 4 reported a poor outcome. Four patients reported a poor outcome at final follow-up. The success rate at 28 years was 86.4% and the predicted 30-year survival was 82%.

The medial Oxford mobile bearing UKA in this series has excellent 30-year survival results with approximately 80% of patients undergoing a single procedure to successfully treat their knee OA. This procedure offers definitive treatment and should not be considered a pre-total knee replacement.