

CONSTRAINED CONDYLAR KNEE REPLACEMENT AS PRIMARY ARTHROPLASTY IN COMPLEX KNEE OA: SHORT TERM RESULTS

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INTRODUCTION:

Constrained Condylar Knee (CCK) Replacement is commonly performed in revision arthroplasty. However, its indication can be stretched in severe primary osteoarthritis (OA) knee with valgus or varus deformity in addition to presence of ligamentous laxity and bony defects. Here, we present our short-term results in 7 patients.

METHODS:

Between 2015 and 2018, we performed Constrained Condylar Knee (CCK) Replacement in 7 patients. A total of 11 knees were operated upon with severe complex OA of knee. The 11 knees were classified according to Ahlbäck classification. 4 patients had bilateral knee replacement performed. Patients were reviewed at 1, 3, 6- and 12-months intervals and annually. Oxford knee score was assessed prior to surgery and 6- and 12-months post-surgery.



Preoperative X-rays of Complex Knee OA



Post op X-rays of CCK implanted knees

RESULTS:

All the 11 knee replacements were followed up closely. We used augments in cases of bone defects so as to not alter the joint lines in the affected knees. Where applicable, we use stems in our series. There were no reported cases of deep infection. All the patients had full knee

extension and a mean average of 98 degrees of flexion. All the patients reported good to excellent knee scores (Oxford knee score). There were no reports of anterior thigh pain or periprosthetic fracture.

DISCUSSIONS:

Traditionally CCK replacement is done in revision knee replacement surgery as a result of large bone defect left behind after removal of previous implants and ligament insufficiencies. However, indication for the use of such implants have been expanded to severe primary OA of knees. First generation of CCK implants were reported to have high complication rates but the use of second generation has improved outcomes. Previous studies reported CCK infection rate between 3 and 5% but we had none in our series.

CONCLUSION:

Our experience shows good clinical outcome and patient satisfaction after primary knee replacement with CCK prosthesis.

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