

STUDY OF PATIENT REPORTED OUTCOME AFTER TOTAL KNEE REPLACEMENT IN KNEE OSTEOARTHRITIS WITH GENU VARUS DEFORMITY

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INTRODUCTION

Osteoarthritis or degenerative arthritis is an idiopathic slowly progressing synovial joint disease that is pathologically distinguished by localized articular cartilage degradation. Although osteoarthritis can harm any joint, it most frequently affects the knee, hip, and spine. Advanced age, sex, BMI, joint injuries, repetitive stress injuries, genetics, bony deformities, and specific metabolic diseases are risk factors for osteoarthritis. Symptoms of osteoarthritis frequently appear gradually and get worse over time. Pain, discomfort, stiffness, lack of flexibility, grating sensation, bone spurs, and swelling are the most typical signs and symptoms. The commonest deformity in patients with knee osteoarthritis is Varus deformity. Oxford Knee Score (OKS) is an established patient-reported outcome measure to assess knee pain and functioning before TKA as it helps in determining the need for medical or surgical management preoperatively. Also, it helps in the evaluation of the patient reported outcome postoperatively.

AIM OF THE WORK

The aim of this study was to evaluate the results of total knee replacement in osteoarthritic knee with severe varum deformity.

PATIENTS AND METHODS

PATIENTS:

This prospective comparative study included 25 consecutive series of patients suffered from knee osteoarthritis with genu varum deformity treated by total knee arthroplasty at El-Hadra University and Gamal Abd El Nasser Hospitals, starting in January 2021 and ended in June 2022. Those patients had been treated and followed up post operatively for at least six months. Inclusion criteria was osteoarthritic patients above fifty. Exclusion criteria were suspected bony lesions, septic arthritis, posttraumatic arthritis, multiligamentous knee injuries, previous hardware and previous osteotomies.

METHODS:

Twenty five patients were managed by Posterior Stabilized (PS) or Constrained Condylar Knee (CCK) total knee arthroplasty. Every patient had stitching films of both lower limbs of the affected knee preoperatively and at the end of the six months follow up. The Oxford Knee Score (OKS) is a 12-item patient-reported outcome (PRO) specifically designed and developed to assess function and pain before and after total knee replacement (TKR) surgery. It is short, reproducible, valid and sensitive to clinically important changes. Every patient had (OKS) preoperatively and at the end of the six months follow up.

RESULTS

Total oxford score postoperative was improved by a mean value of 38.12 ± 7.62 , this improvement was statistically significant.

Table 1: Comparison between preoperative and postoperative according to total OX (n = 25)

Total OX	Preoperative	Postoperative	T	P
Min. – Max.	3.0 – 19.0	22.0 – 48.0		
Mean \pm SD.	11.0 ± 4.03	38.12 ± 7.62	26.164*	<0.001*
Median (IQR)	11.0 (8.0 – 13.0)	40.0 (34.0 – 44.0)		

Table 2: Comparison between preoperative and postoperative alignment (n = 25)

Angle	Preoperative	Postoperative	Z	P
Min. – Max.	4.0 – 33.0	0.77 – 12.0		
Mean \pm SD.	14.57 ± 7.52	3.72 ± 2.93	4.200*	<0.001*
Median (IQR)	13.40 (10.2 – 17.0)	3.19 (1.95 – 4.0)		

CONCLUSION

There is positive relation between the improvement of radiological knee angles and oxford knee score, there is no relationship between age, sex, BMI and oxford knee score, and there is significant postoperative increase in oxford knee score and EQ5D5L after TKA.