

Paper #160

Extensor Mechanism Reconstruction with Achilles Tendon Allograft after Infected Total Knee Arthroplasty.

Theofylaktos Kyriakidis, MD, MSc, PhD, BELGIUM

Jacques Hernigou, MD, BELGIUM

Aad A. Dhollander, MD, PT, PhD, BELGIUM

Peter Verdonk, MD, PhD, BELGIUM

René E. Verdonk, MD, PhD, BELGIUM

Erasme University Hospital
Brussels, BELGIUM

Summary:

Extensor mechanism reconstruction following infected total knee arthroplasty with Achilles tendon allograft was shown to be an efficient and safe procedure with good clinical results at two years follow-up.

Abstract:

Introduction

Extensor mechanism disruption is a devastating and very demanding complication leading to chronic pain, limited range of motion, extension lag and gait abnormalities. Consequently, it has a negative impact to the patient's quality of life and autonomy. Limited available data exists to describe outcomes in case of reconstruction after infected total knee arthroplasty.

Purpose

The purpose of this study was to determine the efficacy of the extensor mechanism reconstruction with Achilles tendon allograft after infected total knee arthroplasty.

Methods

A consecutive series of six patients who underwent extensor mechanism reconstruction for infra patellar disruption after infected total knee arthroplasty were followed prospectively for 2 years. An Achilles tendon with calcaneal bone block allograft was systematically used. Clinical outcomes concluded range of motion, extension lag and all the subscales of the Knee Injury and Osteoarthritis Outcome Score (KOOS). Clinical failure was defined as extension lag higher than 20 degrees or revision surgery.

Results

The mean age of the study population was 69 years (range 63-74) with a mean BMI of 27.53 +/- 3.34 kg/m² and a minimum of 5 previous knee procedures. The mean range of motion was improved significantly from 66 +/- 24 degrees preoperatively to 99 +/- 23 degrees at the final follow-up ($p < 0.001$). Equally, the mean extension lag was reduced significantly from 29 +/- 17 degrees to 9 +/- 9 degrees ($p < 0.001$). Three subscales of KOOS score presented significant differences at the final follow-up compared to their preoperative values ($p < 0.001$). The KOOS-Pain of 11 +/- 2.20 increased to 41 +/- 1.95, the KOOS-Symptoms improved its initial value of 7 +/- 3.53 to 43 +/- 2.20 and the KOOS-ADL increased of 10 +/- 2.50 to 39 +/- 1.95 at the final follow-up. Contrary, no difference was found between the subscales of KOOS Sports/Recreation and KOOS-QOL. There was no failure or treatment-related adverse events

ISAKOS

International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine

12th Biennial ISAKOS Congress • May 12-16, 2019 • Cancun, Mexico

Paper #160

recorded.

Conclusion

Extensor mechanism reconstruction following infected total knee arthroplasty with Achilles tendon allograft was shown to be an efficient and safe procedure with good clinical results at two years follow-up.

Keywords: extensor mechanism reconstruction, Achilles tendon allograft, infected total knee arthroplasty, patellar tendon rupture