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Survivorship Analysis and Clinical Outcomes of Transtibial Pullout Repair for Medial Meniscus Posterior Root Tears: A 5- to 10-Year Follow-Up Study

Kyu Sung Chung, MD, PhD, Prof., KOREA, REPUBLIC OF

Jeong-Ku Ha, MD, KOREA, REPUBLIC OF Ho-Jong Ra, MD, PhD, KOREA, REPUBLIC OF June-Mo Noh, MD, KOREA, REPUBLIC OF Dhong-Won Lee, MD, KOREA, REPUBLIC OF Jin-Goo Kim, MD, PhD, KOREA, REPUBLIC OF

Department of Orthopaedic Surgery, Seoul Paik Hospital, Inje University Seoul, KOREA, REPUBLIC OF

Summary:

Among patients with medial meniscus posterior root tears, transtibial pullout repair demonstrated a high clinical survival rate and the patients demonstrated clinical improvement, based on mid- and long-term follow-up examinations.

Abstract:

Introduction

This study investigated the clinical outcomes and mid- to long-term survival rates in patients undergoing transtibial pullout repair of medial meniscus posterior root tears (MMPRTs) after a minimum follow-up of 5 years.

Methods

Between 2005 and 2011, patients with MMPRTs who had been followed for at least 5 years after undergoing transtibial pullout repair were recruited. Participants were identified using medical records and information in a prospectively collected database. Clinical outcomes were assessed based on a comparison of patient preoperative Lysholm scores and their scores at the final follow-up. A Kaplan-Meier survival analysis was used to investigate the survival rates of repair procedures. Clinical failures were defined as cases requiring conversion to total knee arthroplasty (TKA) or having final Lysholm score less than 65 or less than their preoperative scores.

Results

Overall, 91 patients (mean age, 58.7±9.7 years) were included: the mean follow-up duration was 84.8±13.8 months. Among these patients, the mean Lysholm score improved significantly from 51.8±7.9 preoperatively to 83.0±11.1 at the final follow-up (P<.001). Overall, 4 patients failed due to conversion to TKA (n=1) or having final Lysholm scores less than 65 or less than the preoperative scores (n=3). The overall Kaplan-Meier probabilities of survival after repair were 99% at 5 years, 98% at 6 years, 95% at 7 years, and 92% at 8 years.

Conclusion

Among patients with MMPRTs, transtibial pullout repair demonstrated a high clinical survival rate and the patients demonstrated clinical improvement, based on mid- and long-term follow-up examinations.