

MOBILE BEARING VS FIXED BEARING PROSTHESES FOR TOTAL KNEE ARTHROPLASTY FOR POST-OPERATIVE FUNCTIONAL STATUS IN PATIENTS WITH OSTEOARTHRITIS AND RHEUMATOID ARTHRITIS

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ABSTRACT

Background

The polyethylene insert in a total knee replacement (TKR) can be fixed to the tibial plateau or it can have freedom of rotation and / or translation. It is not yet clear whether there are differences in functional or clinical results between the two prosthesis types.

Objective

The goal of this review is to assess if a mobile bearing total knee prosthesis provides a better range of motion (ROM) and a better functional outcome than a fixed bearing prosthesis in patients with rheumatoid arthritis or osteoarthritis after total knee arthroplasty.

Criteria for considering studies for this review

We searched the Cochrane Library (issue 2002-3), Current contents (1996 to September 2002), and MEDLINE (1966 to September 2002). Reference lists of selected articles were also included.

Selection criteria

Randomised controlled trials or controlled clinical trials were selected which used a functional or clinical outcome measure comparing mobile (rotating and/or sliding) with fixed bearing types.

Data collection and analysis

Data was collected on relevant demographic data and functional outcome measures like Range of Motion, specific measures of activities with daily tasks, and composite knee scores such as Knee Society Score, Hospital for Special Surgery score and similar scores. Only controlled studies comparing a fixed bearing with a mobile bearing type of TKP were considered.

Main results

Two randomised studies were encountered evaluating the difference in functional or clinical outcome of the two prosthesis types. The methodological quality of the studies was low. The study with the best quality found no difference in ROM, but found a superiority of the mobile bearing on Knee Society Score and Oxford Knee Score and the pain sub scores of these clinical measures. The second study found no differences.

Authors' conclusions

We could find no evidence of superiority for one of the two prosthesis types with regard to ROM or functional performance of the patients. The majority (96%) of patients in the 2 included studies had OA. Therefore, the results reflect primarily results in OA patients.
