Range of Motion after Total Knee Replacement in Patients with Valgus Knee Deformity: Comparison of Patients with Rheumatoid Arthritis and Degenerative Osteoarthritis

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ABSTRACT

Objective: To ascertain whether the range of motion after total knee replacement for patients with rheumatoid arthritis or degenerative osteoarthritis with valgus knee deformity is affected by the pathology causing valgus deformity and preoperative range of motion.

Patients and Methods: The range of motion of 23 knees of 19 patients with valgus knee deformity of more than 10° undergoing total knee replacement was reviewed. The patients had either rheumatoid arthritis or degenerative osteoarthritis. Preoperative and postoperative differences in tibial-femoral alignment, flexion deformity, and maximum flexion were compared between the 2 patient groups.

Results: Ten knees had rheumatoid arthritis and 13 had degenerative osteoarthritis. Duration of follow-up ranged from 6 to 49 months. Based on a similar pattern of preoperative deformity, patients with rheumatoid arthritis had better correction in flexion deformity and less loss of flexion range compared with patients with osteoarthritis after total knee replacement. Patients with a mobile knee preoperatively tended to lose some range of motion after total knee replacement and the loss was significantly greater for patients with osteoarthritis.

Conclusion: The range of motion following total knee replacement for patients with valgus knee deformity is affected both by the preoperative range of motion and by the aetiology of the valgus deformity.

Key Words: Arthroplasty, replacement, knee, Range of motion, articular

中文摘要

患膝部外翻變形之類風濕性關節炎及退化性關節炎病人在全膝關節置換術後的膝關節活動能力的回顧性調查

我們對19個(23例)膝部外翻變形病人在全膝關節置換術後的膝關節活動能力進行了回顧性的調查;其中10例為類風濕性關節炎的病人,另13例為退化性關節炎的病人;隨診時間為6－49個月。調查發現類風濕性關節炎的病人,比較起退化性關節炎的病人,膝關節屈曲變形的情況於術後可獲更大改善。另一方面,術前擁有極好膝關節活動能力的病人術後會喪失一部分的膝關節活動能力,這種情形在類風濕性關節炎的病人身上較為輕微但在退化性關節炎的病人身上極為明顯。總的來說,膝部外翻變形病人在全膝關節置換術後的膝關節活動能力會受其術前的膝關節活動能力及病因影響。

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