

Sports Activity 6 Years After Total Knee Arthroplasty with Rotating Platform

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Summary:

6 years after TKA with a rotating platform sports activity is increased significantly in nearly all sports compared with the activity one year preop. and follow up knees with preoperative varus alignment are functionally better than preoperative valgus knees, but currently no statement can be made, if there is a higher risk of loosening at sports activity in the long term.

Abstract:

Question:

Which sports activity is achieved, which are subjective and objective findings after total condylar knee prosthesis with rotating platform?

Methodology:

Retrospective study, 81 patients from an alpine region, 6 years follow up. All knees had a preoperative IV^o osteoarthritis (Kellgren-Lawrence score) and had been treated with a total condylar arthroplasty (cruciate retaining) with rotating platform. The sports activity has been detected. There was a clinical examination. The subjective and objective findings were assessed by KOOS, WOMAC, OKS and IKDC 2000. Statistical analysis: t-test, Mann-Whitney U-test, Wilcoxon test, with statistical significance $p < 0.05$.

Results:

Follow-up: 6.4 ± 0.9 years. Patients do sports in average of 3.5 x (preop: 2x) and 5.3 h (preop: 3.3 h) weekly. Alpine skiing: 25% versus 17% preop. Aquafit: 26% versus 15% preop. Hiking: 70% versus 27% preop. Fitness: 33% versus 18% preop. Golf: 11% versus 5% preop. Jogging: 4% versus 4% preop. Rock climbing: 9% versus 2.5% preop. Nordic skiing: 27% versus 16% preop. Nordic Walking: 31% versus 10% preop. Cycling: 94% versus 68% preop. Swimming: 76% versus 69% preop. Dancing 46% versus 18% preop. Tennis: 10% versus 4% preop.. In KOOS-Sports patients reached a value of 60 ± 28 , in WOMAC a total value of 121 ± 151 , in OKS a value of 44 ± 4 . In KSS objective a value of 87 ± 10 and in KSS function subjective a value of 93 ± 9 was reached. In the classical joint replacement scores there was no significant difference between knees with a preoperative varus or valgus alignment. In IKDC objective 70% of the preoperative varus knees were in group B at follow up (nearly normal) and the preoperative valgus knees with 56% were represented most frequently in group C (abnormal). The difference in IKDC objective was highly significant ($p < 0.001$)

Conclusion:

6 years after TKA with a rotating platform sports activity is increased significantly in nearly all sports compared with the activity one year preop.. At follow up knees with preoperative varus alignment are functionally better than preoperative valgus knees. Currently no statement can be made, if there is a higher risk of loosening at sports activity in the long term.