Association of body mass index and clinical outcome 2 years after unicompartamental knee arthroplasty.

INTRODUCTION: Unicompartmental knee arthroplasty (UKA) has gained in popularity during the last years. However, the body mass index (BMI) of patients undergoing UKA is controversially discussed in the literature. There is, moreover, a paucity of information available concerning the association of BMI with early clinical outcomes after UKA.

MATERIALS AND METHODS: We retrospectively reviewed the clinical data of 83 consecutive UKA, 2 years after surgery, and investigated the potential association of BMI and the outcome variables Knee Society Score (KSS), University of California at Los Angeles (UCLA) activity levels, anterior knee pain (AKP), range of motion, and implant failure.

RESULTS: The KSS and UCLA significantly increased from 132 and 4.7 preoperatively to 187.5 and 7.1, respectively, after surgery. Knee flexion significantly improved from 123.7 to 128.4 degrees and the prevalence of extension deficiencies significantly decreased from 28.9 to 15.7%. Three knees (3.6%) failed and were converted to total knee arthroplasty. Failures were not associated with increased BMI (P = 0.387). The BMI had no significant association with KSS values, UCLA levels, and implant failure. We found a weak negative correlation between BMI and postoperative knee flexion (r = -0.285, P = 0.009) and a moderate positive correlation between BMI and the intensity of AKP (r = 0.525, P<
0.001). CONCLUSION: The results of the present study suggest that the BMI of patients undergoing UKA has no major impact on the early clinical outcome 2 years after surgery. There was, however, a definite correlation between the BMI and AKP. Longer follow-up is necessary to determine if overweight and obesity may increase revision rates after UKA.