
Abstract: Anterior-posterior knee displacements were measured sequentially with the KT-1000 arthrometer on 84 patients after anterior cruciate ligament reconstruction for chronic deficiency. We determined the correlations between the initial onset of abnormal displacements (greater than 2.5 mm between limbs) and time from surgery or the phase of rehabilitation. Group 1 (N = 52) had a bone-patellar tendon-bone allograft and Group 2 (N = 32), an iliotibial band extraarticular procedure in addition to the allograft. The mean followup was 37 months (range, 23 to 65). At followup in Group 1, 24 patients (46%) had less than 3 mm of displacement between limbs, 22 (42%) had 3 to 5.5 mm, and 6 (12%) had greater than 5.5 mm. In Group 2, 23 patients (72%) had less than 3 mm of displacement, 8 (25%) had 3 to 5.5 mm, and 1 (3%) had greater than 5.5 mm. The difference between the groups was significant (P < 0.05). The advanced rehabilitation program of immediate knee motion and early weightbearing, did not result in an increased incidence of abnormal displacements in the early phases. The abnormal displacements typically occurred during the latter two rehabilitation phases (intensive strength training or return to sports). Further, one-third of the abnormal displacement occurred more than 2 years postoperatively.