Bone-patellar ligament-bone and fascia lata allografts for reconstruction of the anterior cruciate ligament


Abstract: A prospective study was performed of the first forty-seven consecutive patients who had repair of a ruptured anterior cruciate ligament and replacement with an allograft. Patients who had a rupture of another ligament were excluded, to provide a homogeneous group. Twenty-two patients received a fascia lata allograft and twenty-five patients received a bone-patellar ligament-bone allograft. All patients were enrolled in an exercise program to facilitate motion of the knee immediately after the operation, and all patients returned for postoperative evaluation (mean, forty months; range, twenty-five to sixty-seven months). The results were based on a comprehensive subjective and objective rating system, which assessed twenty factors. On testing with the KT-1000 arthrometer, 69 per cent of the patients had less than three millimeters of increased anterior-posterior displacement of the knee that had been operated on compared with the contralateral knee, 26 per cent had three to five millimeters, and 5 per cent had more than five millimeters. The knees that had a bone-patellar ligament-bone allograft had significantly lower values for anterior-posterior displacement than did those that had a fascia lata allograft (p less than 0.05). Just one patient, the only one in whom the fascia lata graft failed, had giving-way. There were no infections, and there was no evidence of rejection of the allograft or documented transmission of disease at the time of writing. A strict rating system was used. Eighteen patients (38 per cent) had an excellent result, twenty-four (51 per cent) had a good result, and five (11 per cent) had a fair or poor result. Motion of the knee immediately postoperatively was not deleterious to the allograft, and, because limitations of motion were identified and treated in the early postoperative period, full motion (0 to 135 degrees) was restored in all knees.