

1st Canadian LARS Symposium
in cooperation with Université de Montreal
Montreal Nov. 2004

Extensor mechanism reconstruction with a polyesterband in limb salvage surgery

Dominkus M., Sabeti M., Toma C., Kotz R.

Wide resection of intrarticular tumors of the distal femur or proximal tibia resection often need augmentation or total reconstruction of the extensor mechanism. We describe a new method of reconstruction using a polyester ligament (Lars®) with a minimum elongation rate of less than 7% and a minimal rupture level is 4000 N. Twenty two patients (14 men, 8 women) with a mean age of 32 (8-75) years with extensive tumour resections around the knee joint were evaluated after a mean follow up of 18 months (6 to 36 months) according to their active and passive range of motion of the knee joint, extension lag, and revisions. The patient's functional outcome and satisfaction were analysed with the TESS and Enneking-Score. In 8 cases the Lars® ligament implantation was carried out at the primary operation, in 14 patients the reconstruction was performed during a revision procedure. 2 patients received endoprosthesis reconstruction after a primarily performed resection-arthrodesis. Extraarticular resection was performed in 10 patients. The mean TESS -Score was **72 (39-93)**. The mean Enneking-Score **61 (17-90)**. 6 patients had excellent knee function with a lag of extension less than 5 degrees, 4 patients had an extension deficit of less than 20, 3 patients had less than 40 degrees and 6 patients could not lift their limb extended against gravity, although no patient required any kind of walking aid. All implants showed stable ingrowth in the radiographs at the last follow up. The results confirm a clear benefit of augmentation or defect reconstruction of the extensor mechanism of the knee joint using the Lars ® polyester ligament in limb salvage surgery.