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Titel:

Reconstruction of the extensor apparatus with a new polyester ligament following extensive resection of malignant tumours around the knee joint

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Summary:

We describe a new method of reconstruction of the extensor apparatus after extensive resection of malignant tumours around the knee joint with a polyester ligament. Twenty two patients after a mean follow up of 18 months (6 to 36 months) were treated. 6 patients had excellent knee function with a lag of extension less than 5 degrees, 4 of less than 20, 3 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. The mean Enneking Score was 81,5 the mean TESS Score was 83.

Full Abstract:

Purpose: Limb salvage surgery in primary malignant bone tumours is widely accepted as the surgical treatment of choice around the knee joint. Extraarticular resection for oncological radicality usually results in additional resection of at least part of the extensor mechanism.

Method: Since January 2000 we used a Polyester Band (LARS®) for either augmentation of a transposed muscle or as a complete soft tissue bridging after tumour resection in 22 patients (14 men, 8 women) with a mean age of 32 (8-75). The HMRS tumour endoprosthesis was used for the reconstruction of the knee joint.

Result: The location of the tumour was in the distal femur in 10 cases and the proximal tibia in 11. One synovial sarcoma arose at the lateral meniscus. The mean follow up was 18 months (6-36) after implantation of the LARS® ligament. Patient's functional outcome and satisfaction was 83 (65-92) at the TESS Score and 81,5(43-92) at the Enneking Score, respectively. 6 patients had excellent knee function with an extension deficit of less than 5 degrees. In 4 cases the extension deficit was less than 20, in 3 cases it was less than 40. In 6 patients the active extension lag was more than 40 degrees. However, their remaining quadriceps strength was sufficient for stabilisation of the knee joint during gait without any aids. At last follow up all implants were in situ without any signs of loosening. No patient had to be amputated because of septic complication.

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Disclaimer:

I agree with the publication of the abstract presuming that the full paper is accepted for publication until the conference. I reserve the right of disagreement in case of scientific inconsistency.