

Sports Activity Levels in Survivors of
Soft-tissue Sarcoma of the Lower Extremity

GM. Hobusch, MD, M. Cernakova, NE. Lang, MD, J. Panotopoulos, MD,

PT. Funovics, MD, MSC, R. Windhager, MD

Department of Orthopaedic Surgery, Medical University of Vienna, Austria

Introduction: Little is known about sports activities in patients with soft-tissue sarcomas. The aim of the study was to assess sports activity levels in long-term survivors of soft-tissue sarcomas after multimodal treatment including limb salvaging surgical resection and radio-chemotherapy.

Methods: 32 patients (14 f/ 21 m) with a mean age of 29 (range 10-44) years at the time of diagnosis and a mean follow-up time of 9 (range 3-21) years following sarcoma were included. 11 patients had diagnosed liposarcoma, 7 synovialsarcoma, 3 myxofibrosarcoma and 12 other different soft-tissue sarcoma entities. 24 (75%) were located in the thigh, 8 (25%) in the lower leg. 12 tumors were located epifascial, 24 in deeper tissue layers. Sports activity was measured by UCLA and Tegner Activity Score.

Results: One year before and >3 years post treatment 29 patients (90%) were performing athletic activity regularly. They were performing 5.4 h/week prior and 4.1 h/week >3 years post surgery. The mean UCLA score and Tegner Activity score were 8.0 and 4.2 respectively, in case of deep sarcomas in contrast to 9.2 and 4.8 in epifascial tumors.($p<0.05$). UCLA scores after deep sarcoma resection 3 years postoperative were still below preoperative UCLA levels ($p<0.05$) whereas patients after superficial tumor resection had no losses of sports activity. No relation between complications and postoperative sports activity level was found.

Conclusions: Healthy long-term survivors can achieve high levels of sports activity following the treatment of limb salvage of soft-tissue sarcomas. This knowledge may be of high value for physicians and orthopaedists treating patients, as well as for patients themselves who want to be informed about what they will be able to do after treatment.