

**FC-108****The impact of "extended surgical procedures" on the outcome of soft tissue sarcomas****C. Stihsen**, C. Novak, J. Panotopoulos, R. Windhager, P. Funovics*Department of Orthopaedic Surgery, Vienna General Hospital, Medical University of Vienna, Austria*

Introduction: Wide resection of soft tissue sarcomas (STS) may result in large defects of surrounding structures. The balance between aggressiveness of surgical intervention, functional restoration and cosmetic outcome represents a challenge for surgeons. The aim of this study was to investigate the impact of "extended procedures" of STS on survival of a large series.

Patients and Methods: The Vienna Bone and Soft Tissue Tumor Registry has documented 752 patients treated for STS (406 men and 346 women, average age 51 years). Out of them 443 sarcomas of the limb where a surgical resection was performed, could be identified. A minimum follow up of 24 months was available in all cases. In 301 patients only a tumor resection without reconstruction was the treatment of choice, 142 patients received a tumor resection followed by reconstructive procedures. Collectively, these "extended procedures" implemented endoprosthetic supply, soft tissue flap reconstructions, nerval-, vascular-, or osseous-interventions or a combination of these. The mean overall follow up was 89 months (range: 24-636 months, median: 65 months).

Results: Overall survival (OS) of the entire group at 1, 5 and 10 years was 85%, 60% and 48%, respectively. Statistical analysis showed no difference in OS between the group where a resection without additional procedure was performed and the group where extended procedures were applied ($p=0.897$). Multivariate subgroup analyses indicated a significantly improved OS in cases where extended procedures with involvement of bone were performed ($p=0.038$).

Conclusion: The indication for use of extended procedures was commonly a locally progressed tumor. Usually a worse OS would be expected in these cases, however our evaluations revealed an equal survival of these patients. Extended procedures on the bone even showed improved OS rates. Our results indicate that extended surgical procedures might be favoured in borderline cases where it is unclear, whether the best treatment implements just a tumor resection or if there is evidence for a more aggressive surgical approach. Further investigations have to be performed to confirm our findings.