

Outcome following resection of Synovial Sarcoma – Analysis of prognostic factors with a minimal follow up of 5 years

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Background/Hintergrund:

Synovial sarcoma (SS) are malignant soft tissue tumors, whereas 77% of patients are younger than 50 years and 30% even younger than 20 years. The prognosis of SS is mostly influenced by individual factors, which are controversially discussed in the recent literature.

Questions:

Aim of this study was an outcome analysis of patients with SS with respect to prognostic factors which in the literature were controversially discussed. The aim of the study was an outcome analysis of patients with SS.

Patients and Methods:

Included were all patients who were treated for SS between 1999 and 2007-2009 at the musculoskeletal tumor center. Treatment as well as course of disease and survival was analyzed with regard to location, age, biology, tumor size, grade and metastases. The treatment, course of disease and survival were retrospectively analyzed according to location, age, biology, tumor size, grade and metastases.

Results/Ergebnisse:

In total 52 patients (48% male, 52% female) were analyzed with a mean follow up of 116.3 ± 34.63 years. Age at diagnosis was 37.4 ± 16.04 years (8-77 years). Histopathological findings revealed monophasic SS in 31 cases (60.4%) and dedifferentiated SS in 1 case (2.1%) and biphasic SS in 20 cases (38.4%). In 6 cases no histopathological findings were available. In total 14 patients (27.8%) were previously operated in external hospitals, none had clear margins. The grading was G1 in 1 patient (2.0%), G2 in 19 patients (37.0%) and G3 in 32 patients (61.0%). Primary metastases were recorded in 3 patients. Most frequent locations were the thigh and the knee (65.4%). Clear resection margins were achieved in 79% and limb salvage was performed in 77%. Adjuvant radiation was performed in 26 patients (50%). Recurrence rate was 36% in the group with previous operations and 24% in the not previously operated group. Likewise, previously operated patients developed metastases during the course of disease more frequently (29% vs. 36%). Survival rates were inferior in patients with high grade tumors, older than 40 years and with previous operations. The poorest survival was seen in patients with big tumors, metastases and/or local recurrence and patients with large or low grade tumors.

Zusammenfassung/Conclusions:

Synovial sarcoma are frequently seen in younger patients, especially in younger patients. Almost one third of our patients was insufficiently treated at peripheral hospitals, which was a factor for poor survival. Furthermore, prognosis was affected by factors such as tumor size, grading, age, local recurrence and metastases. Decisive for the prognosis are, besides a resection with wide resection margins, factors like tumor size, differentiation grade and age of the

~~Patienten. Da auch eine späte Metastasierung möglich ist sollten Nachsorgeuntersuchungen auch nach mehr als 10 Jahren durchgeführt werden.~~