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Outcome after surgical treatment of undifferentiated pleomorphic or not otherwise specified (NOS) sarcomas of the extremities-an analysis of 140 patients

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Undifferentiated pleomorphic sarcoma/NOS (former pleomorphic and storiform MFH) of the extremities is a common malignant soft tissue tumor in adults. The objective of this study is to determine prognostic factors for the outcome after surgical treatment with respect to the recent developments in classification. From 1996 to 2004, 140 undifferentiated pleomorphic sarcomas/NOS were identified out of 1200 soft tissue sarcomas of the extremities that were treated at our institution and recorded in a prospective database. Overall survival (OS) and isolated local recurrence (ILR) were determined by Kaplan-Meier analysis. All tumors were retrospectively analyzed regarding prognostic factors of the disease, including patient's background (primary or recurrent), histological grade (G2/G3), adjuvant chemotherapy and radiotherapy, size (T1−2) and depth of the tumor, and surgical margins (R0, R1, R2).
In 123 patients, a wide resection was performed (limb sparing surgery). In 9 patients, an amputation was necessary. The overall 5-year survival rate was 72% (median follow-up: 52 months). There was a significant difference between the group presenting with primary tumors (5y survival: 84%, $p < 0.05$) and recurrent tumors (5y survival: 62%, $p < 0.05$). Isolated local recurrence occurred in 36 patients.
In terms of OS and ILR, primary or recurrence, negative surgical margins, size and grading had a highly significant influence, whereas the site of surgery and adjuvant chemotherapy, adjuvant radiation and tumor depth did not. Prognosis for patients with undifferentiated pleomorphic sarcoma of the extremities depends predominantly on adequate wide resection of the primary tumor.

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Diagnostic work-up of soft tissue sarcomas: compliance with the guidelines

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Background: National guidelines for the diagnosis and treatment of patients with soft tisssue tumours aim to optimize treatment and to avoid unplanned "Oops"-resections of soft tissue sarcomas (STS) In the present study adherence to national guidelines (2003) was evaluated.
Material and Methods: A population-based cohort of patients with primary STS of the extremities and truncal wall was analysed. Patients were registered and treated in the area of the Comprehensive Cancer Centre Middle Netherlands between January 1991 to January 2008. We evaluated the proportion of patients that had preoperative imaging of the tumour, preoperative histological biopsy and radiological examination for pulmonary metastases. A possible effect of the national guideline was studied by comparing the results for the cohorts treated before and after 2003.
Results: The case records of 326 patients were evaluated. There were 192 males and 134 females with a mean age of 54 years. The STS were localized on the legs in 160 patients (49.1%), the arms in 62(19%) and truncal wall in 104 Patients (31.9%). Preoperative work-up contained an MRI in 58.3% of the patients, a histological biopsy (incisional or core needle) in 39%, and chest X-ray or CT in 62.2%. Patients with a STS of the lower extremity more often had preoperative MRI-scans than patients with STS located in the upper extremity or the truncal wall ($p = 0.048$). In the recent cohort it seems that better imaging of the primary tumour was done, while the proportion of patients that had preoperative histological biopsies and chest staging remained the same.
Conclusions: Guideline compliance in patients with STS in the extremities or truncal wall appears poor. In recent years there seems to be a trend towards better imaging, but not biopsying or staging of the STS.

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The role of postoperative radiotherapy in nonmetastatic soft tissue sarcomas of the extremities: a monocenter results

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Purpose: To assess the results of postoperative radiotherapy in patients with nonmetastatic soft tissue sarcomas of the extremities and the prognostic factors that affect the treatment results, respectively.
Methods and Materials: Between the years 1980 and 2005, 103 patients with sofy tissue sarcomas of the extremity treated in our department.53 (51.5%) were male, 50 (48.5%) were female. Median age was 43 years (range 15−92 years). The tumor size was between 1−22 cm (median 8 cm). Nine patient stage IA, 41 were stage IB, 10 were stage IIA, 22 were stage IIB, 9 were stage IIIA, 12 were stage IIIB. The most frequent histological types were; malignant fibrous histiocytoma (27.9%), liposarcoma (23.1%) and synovial sarcoma (13.5%). Twenty-five patients were operated for reccurent tumor before they were refered to our clinic. Anteropsterior and posteroanterior parallel-opposed ports were usually used and a booster dose was given after 45−46 Gy. The median total tumor dose was 62 Gy(median 46−70 Gy).49 patients had close or positive surgical margin. Adjuvant chemotherapy was added to the patients with high grade tumors. Chemotherapy was given in 39.4% of the patients. Chemotherapy scheme consisted of doxorubincine 75 mg/m^2, ifosfomide with mesna 2 gr/m^2, used in different combinations. Treatment results were analyzed by Kaplan Meier metod and univariate and multivariate analysis was performed.
Results: Median follow up time was 60 months (range 3−349 months).24 patients (23.3%) locally recurred and 30 Patients (29.1%) had distant metastases. Lung and bone metastasis were the most common site of metastasis. The 5 year local control, disease free and overal survival rates were 76%, 58% and 71%, respectively. Tumor size >5 cm had a worse prognosis than smaller tumors at overall survival in univariate analysis ($p = 0.05$). Patients treated with dose >60 Gy($p = 0.04$) and lower extremity located tumors had significantly better local control than the others ($p = 0.04$). In multivariate analysis both radiotherapy dose and ($p = 0.04$), tumor size >5 cm ($p = 0.03$) and location of the tumor($p = 0.04$) were found to be significant prognostic factors. Hyperpigmentation and desquamation was the most common frequently seen early side effect. 45 patientshad various degrees of fibrozis, 15 patients had chronic oedema, 7 patients had delayed wound complication, 3 patient had lympangitis and 1 patient had bone fracture as late morbidity.
Conclusion: Postoperative radiotherapy has an important role on local control of extremity soft tissue sarcomas. Tumor location, tumor size and radiotherapy dose seems to be the most important prognostic factors affacting the treatment results in our series.

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Retroperitoneal sarcoma: retrospective analysis of a large single institution series

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Background: Prognosis of retroperitoneal sarcoma (RPS) is poor, especially if evaluated on the long run. The majority of patients die of loco-regional disease. The mainstay of treatment for primary and recurrent RPS is surgery, but both quality and efficacy of the surgical resection decrease after multiple recurrences. We analyzed a large single institution series of RPS with the aim to provide information on the natural history of the disease and to identify prognostic factors of outcome.
Methods: since 1998 to 2008, 149 patients referred to our Institution underwent surgery for RPS (77 primary tumors, 72 recurrent). Potential prognostic factors including histology, tumor grading, time to last recurrence and multifocality were retrospectively tested by univariable and multivariable analysis. Primary end-points were local disease free survival (LDFS) and disease-specific survival (DSS) from the first recurrence onward.
Results: Median age of the study population was 55 years (range 20−83); 81 were male. Median FU was 33 months (range 6−122). 5-year LDFS and DSS for the whole population were 27.6% and 86%, respectively. Nine-teen patients (13%) developed distant metastases (63% pulmonary; 68% extrapulmonary). Among these, only one was affected by liposarcoma. Twenty-six primary tumors (33.8%) required multivisceral