significance for response (p = 0.013). Particular metastatic sites were not influential for response, but predominant retroperitoneal metastases in STS patients were associated with longer time to progression (p = 0.013).

Conclusion: response rate (RR) and median time to progression are in the limits reported for advanced soft tissue sarcomas (STS), as well as high histological grade (G3) as prognostic factor for response. Peculiar result is that retroperitoneum as predominant metastatic site displays significance for time to progression.

1089 PUBLICATION

#### Short-term evaluation of gait in patients after limbsaving surgery (LSS)

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**Purpose:** At the moment it is not clear how LSS, when applied to lower limbs, does lead to optimal functional results i.e. optimal walking capacity in everyday situations. For walking in an automated fashion a complete re-organisation of the control mechanism is needed.

**Methods:** We studied 11 patients who had a follow-up starting 5 months till 15 months after operation. We measured normal walking, and walking under constraints on a treadmill. The constraint was visual and cognitive. The influence of these constraints on their walking could be derived from basic gait parameters i.e stride duration.

Results: During the follow-up the patients showed an increase in walking speed, a decrease in step cycle duration, a decrease of the influence of walking constraints on stride parameters, a distinct improvement in left-right asymmetry overtime and an improvement of motor skills.

**Conclusion:** A clear functional improvement of gait over a period of 15 months. Which means that in a rather small period they are able to re-organize the massive loss of propriocepsis due to the surgery. However, during gait with different type of constraint, these patients showed some remaining deficits.

1090 PUBLICATION

### Histologic types of post radiation sarcomas

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Post radiation sarcomas are a rare entity and large series are rarely reported. We retrospectively rewieved the cases treated in the French Cancer Centers. All cases were rewieved by a panel of pathologists.

From 1975 to 1995 125 cases were refered for treatement and in 80 cases the diagnosis of sarcomas was confirmed. 56 developed in soft tissues and 24 in bone. Histologically there were: 24 Malignant Fibrous Histocytomas, 5 osteosarcomas, 6 fibrosarcomas, 7 Angiosarcomas, 32 miscellaneous in Soft tissue; 14 Osteosarcomas, 5 Malignant Fibrous Histocytomas, 5 miscellaneous in bone. The tumors were graded with the FNCLCC grading. This was possible in 56 cases and we looked at the survival according to the grade. It was statistically significant.

	Soft tissue	Bone	Total	survival 2 yrs	survival 5 yrs
Grade 1	6	0	6	33%	17%
Grade 2	15	2	17	76%°	62%*
Grade 3	26	5	31	41%	19%

p < 0.01

**Conclusion:** The majority of postradiation sarcomas was of Malignant histofibroma type and osteosarcoma type. Most was of high grade. Survival is affected by the grade

1091 PUBLICATION

# Can multimodal therapy improve the situation of retroperitoneal sarcoma? A prospective analysis

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**Objektive:** Retroperitoneal sarcoma are rare malignant soft tissue tumors occurring in only 0.1–0.2% of all malignancies: We reviewed the occasion,

clinical course, therapeutic and pathologic characteristics of patients (pts) underwenting treatment in our hospital in the last years.

**Patient characteristics:** We evaluabled 30 pts in our prospektive analysis. The median age at diagnosis was 59.1 (8–74) yrs; sex 17/13-m/f. The most common histologic types were liposarcoma (14) and leiomyosarcoma (10). 28 pts received surgery as first line treatment, 20 an en bloc resection, 7 a wide resection and 1 a quadrantenresection, two pts were inoperabel. 4 pts underwent one or more adjacent organ resection to achieve a total excision (kidney  $6 \times$ , adrenal gland  $2 \times$ , uterus/adnexe  $5 \times$ , spleen  $1 \times$ , colon  $3 \times$ , small intestine  $2 \times$ ). V. cava was involved in 3 cases.

Results: Postoperative 8 pts recieved adjuvant radiotherapy (aRT), in 6 cases adjuvant chemotherapy (aCT) was administered. 14 pts only underwent surgery. A local relapse appeared in 14 cases, other 3 had a distant failure The rezidivrate after aRT was 50% (n = 4), after aCT 66% (n = 4) and after surgery allone 42.8% (n = 6). Metastasis occurred in two pts. after aRT and in one without adjuvant treatment. The median time to rezidiv was 22 months, to metastasis 11.2 months. In 64% the rezidiv occurred in the first 24 months. According the Kaplan-Meier method the probality for 5-year survival is 82% with aRT, 27% with aCT and 46% receiving surgery alone. At this time 9 pts-died because of their disease.

Conclusions: The combined treatment surgery with adjuvant radiation or chemotherapie can't improve the rezidivrate or the disease-free-survival. But the application of aRT seems to be sufficient for a better survival in our pts.. Randomised studies are indicated to evaluate combined modalities improving the local treatment and the long-term-survival and preventing systemic relapse.

1092 PUBLICATION

## Is there a place for taxoïds in patients with advanced sarcomas?

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**Purpose:** following data of Lyden about the high efficacy of taxol in mice with either alveolar or embryonal rhabdomyosarcoma (RMS) (Med. Ped. Onc. Vol. 29, 5, 1997, 067) we decided to test the efficacy of taxoïds in advanced sarcomas.

**Methods:** in 3 cases of advanced sarcomas, we tested a salvage chemotherapy (CT) with taxoïds. We treated a 21 y. old girl with metastatic RMS with a second peritoneal relapse with taxol, 4 cycles of 435 mg/m² per cycle (145 mg/m² D1, D5 and D9 docetaxel) every 3 wk. A second patient (p.), 27 y. old, with an huge pulmonary metastatic osteosarcoma (OS) was treated by taxol with the same scheme. A third p., 20 y. old, with bone metastatic OS was treated by Docetaxel 100 mg/m² every 3 wk as a fourth line therapy.

**Results:** the 3<sup>rd</sup> p. had an objective partial response (duration of response: 6 months in case 1 and 2, 4 in case 3). In the first case, side effects of taxol were mild: anorexia, headaches and gastric pain, erythema and cutaneous hyperestheia at the end of each course despite of the high dose of taxol. In the second case, asthenia, exfoliation grade II, cumbersome nails changes were deeply marked. Side effects of docetaxel were limited to diarrhea and grade III neutropenia.

**Conclusion:** Taxoïds had a definite effect on highly pretreated sarcomas. Further studies with its use as second line therapy, could help to determine better its role in sarcomas. 8

1093 PUBLICATION

### Extremity osteosarcomas: Intraarterial chemotherapy

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**Purpose:** To evaluate the efficacy and toxicity of neoadjuvant chemotherapy (intra-arterial) in extremity osteosarcomas.

**Methods:** Since 12/90, 12 patients (pts) have received neoadjuvant chemotherapy: intra-arterial cisplatin (150 mg/m²) and CIVP adriamycin (90 mg/m²). The median age was 18.5 years (15–35 y); 7 females and 5 males; sites: femur-8 (distal-7, proximal-1), tibia- 4; tumour size >5 cm-10 (83.3%).

**Results:** Total of 42 cycles, only 36 cycles were delivered by intraarterial infusion (median-3.5 range 1–4) due to local complication in 2 pts.

Limb-sparing surgery was performed in all pts; 2 achieved ≥90% necrosis, 8 < 90%, 2 were not evaluated. One pt had radiotherapy after. Eleven pts received adjuvant chemotherapy, in 9 pts- cyclophosphamide, bleomycin, actinomycin D, etoposide, cisplatin, adriamycin and in 2 pts- adriamycin. Recurrent disease was found in 4 pts: local-2, distant-1, local + distant-1