associated resection (32% leiomyosarcoma; 14% liposarcoma; 14% other histology). LDFS and DSS became increasingly shorter along with the number of recurrences. Histology and tumor grading have been identified as independent prognostic factors for LDFS. Sex and grading predicted DSS.
Conclusions: In our series, leiomyosarcoma needed a higher rate of multivisceral resections than liposarcoma, probably due to their infiltrative growth pattern, nevertheless, liposarcoma had a worse local control (5-year LDFS 18% versus 56%). Long term survival was similar (5-year DSS 87.6% versus 80.5%), due to the lower rate of distant metastases in the liposarcoma subgroup. The poor local control of liposarcoma, in front of an apparent gross pushing growth pattern, arises the question if a more aggressive surgical policy should be adopted. Recurrent and multifocal tumors need a multimodality approach, since the low chance of radical surgery.

9420 POSTER

"Oops procedures" of Soft Tissue Sarcomas (STS) of extremity and superficial trunk

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Background: Compared to the very common soft tissue masses of the extremities and trunk, soft tissue sarcomas (STS) are rare. Despite national guidelines advocating investigational work-up of soft tissue tumours larger than 5 cm or localised under the fascia, STS are sometimes resected unplanned. The aim of the present study is to describe the frequency of these "Oops procedures", and to determine the proportion that was resected ignoring the guidelines.
Material and Methods: A population-based study was conducted in the area of the Comprehensive Cancer Centre Middle Netherlands. Patients treated between 1992 and 2006 for a STS of the extremities or trunk were identified and case records were retrieved from the five hospitals within the area. We analysed the proportion of patients who had an unplanned marginal resection of a sarcoma, i.e. without preceding MRI or pathology examination. In addition, we analysed which Oops resections could have been prevented if surgeons had acted in accordance with the guidelines, and which cases should be considered 'unpreventable' since they were superficially localised and smaller than 5 cm.
Results: A total number of 326 patients were treated for a primary STS in the extremities or trunk There were 152 male patients (58.9%), and the mean age at presentation was 53.6 years. The median size of the STS was 8.3 cm, and 53% of the tumours was superficially localised.
Twenty-four percent of the patients underwent un unplanned excision as a first operative procedure. Patients who underwent "Oops" procedure had tumours that were smaller (22% <5 cm vs 81% <5 cm; $P < 0.001$), tumours that were more often superficially localised (74.3% vs 44.5%, $P < 0.001$). Furthermore, localisation of the STS influenced the chance of an unplanned resection (46.8% of the lower extremity, 24.1% of the upper extremity, 29.1% for tumours of the trunk). Of the patients that underwent an Oops procedure approximately 30% had tumours that were larger than 5 cm and/or deeply localised. Thus 7.5% of all patients underwent an unplanned resection that could have been prevented when guidelines would have been adhered to.
Conclusion: One quarter of all patients that have STS in the extremities or trunk underwent an unplanned resection. In 7.5% the unplanned resection was the result of non compliance to national guidelines. By defining the quantity of these "Oops procedures", we hope to provide more insight in the current situation of these sarcomas and hereby improve the treatment and outcomes for the patient.

9421 POSTER

The role of chemotherapy in aggressive fibromatosis

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Background: Despite the absence of metastatic potential, aggressive fibromatosis [AF] can be life threatening due to its locally invasive behaviour. The mainstay of treatment is surgical resection with or without radiotherapy. Patients with inoperable disease may be managed with systemic therapy. Chemotherapy is usually administered following failure of hormonal therapy and/or NSAIDS or in the presence of rapidly progressing disease. A number of studies have reported a variety of effective regimens, predominately involving combination therapy with two cytotoxic agents.
Materials and Methods: We conducted a retrospective search of our prospectively maintained database to identify AF patients treated with chemotherapy between 1987 and 2008. The majority of patients were referred to our institution following diagnosis, and in certain instances initial management, at other non-specialist centers.
Results: Thirty six patients with progressive or recurrent AF received one or more lines of chemotherapy. The female: male ratio was 28:8 and median age at presentation was 26 years (range 3−54). Most patients had surgery (30/36 = 83%) and/or radiotherapy (20/36 = 55%). Twenty eight patients (77%) received hormonal treatment usually prior to chemotherapy. The most frequently employed chemotherapy regimens were methotrexate [MTX]/vinblastine (17) and liposomal doxorubicin [LD] (11). Other combinations/agents included MTX/other vinca alkaloid (3), doxorubicin/DTIC (5), vincristine/actinomycin D (2), ifosfamide (2) and other (5). In the MTX/vinblastine group response data were available in 70% of cases. Treatment duration was 3 weeks to 1 year; disease stabilisation was seen in 7/12 (58%) cases; disease progression in 3/12 (25%). Symptomatic benefit was reported in approximately 50% of patients. Peripheral neuropathy and vomiting were the most severe toxicities. Pegylated LD chemotherapy was given at 40−50 mg/m^2 q 4 weeks, for up to 6 cycles. Objective response (PR) according to RECIST was achieved in 4 patients (36%) but notably in some cases not until 6−12 months after completion of chemotherapy. In the remaining 7 cases the disease was stable with no progression during treatment. Symptomatic benefit, especially pain relief, was reported in all cases. Main toxicities involved skin and oral mucosa.
Conclusion: Chemotherapy is a valuable tool in the management of AF. MTX/vinblastine remains a useful combination but LD is emerging as a well tolerated and effective single agent in unresectable AF.

9422 POSTER

Clinical outcomes in patients with a dermatofibrosarcoma protuberans, the effect of microscopic clear resection margins on survival

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Background: Dermatofibrosarcoma protuberans (DFSP) is a rare cutaneous sarcoma. The local agressiveness of DFSPs commonly necessitates extensive resections to obtain tumourfree resection margins. We evaluated outcome of patients with DFSP in relation to resection margin status and postoperative radiotherapy.
Material and Methods: A population based cohort of patients with primary DFSPs treated in the middle Netherlands and registered between 1991 and 2008 by the Comprehensive Cancer Centre was analysed. All patients underwent surgery. Radiotherapy was not uniformly applied. Case records were studied retrospectively, median follow-up was 56 months.
Results: Forty patients underwent surgery for DFSP with a median age of 43 years, gender was evenly distributed. Eighty percent of the tumours was localised on the trunk or upper extremities. Microscopic tumour free resection margins were obtained in 36 patients, multiple resections were needed in seven of them (19%). Seventeen patients had postoperative radiotherapy (following a radical resection). At the end of follow-up, one patient had died of pulmonary metastases, 4 patients had developed a local recurrence. Two of these recurrences developed after an initial irradical resection. The overall five-year cumulative local recurrence rate was 14%. Given a microscopic complete resection, no effect on local recurrence was seen of postoperative radiotherapy.
Conclusions: In a population-based series of patients with locoregional DFSP, obtaining tumour-free resection necessitated repetitive surgery in a substantial proportion of patients. Following resection with microscopic clear margins, local recurrence rates were low, irrespective of postoperative radiotherapy. In a selection of patients with DFSP, postoperative radiotherapy might be avoided.

9423 POSTER

Pre-operative intensity modulated radiation therapy (IMRT) in retroperitoneal sarcoma treatment

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Purpose: Retroperitoneal sarcoma (RPS) recurrences are frequent, due to difficulties to obtain complete surgical resection and proximity of organs at risk limiting radiation doses. The purpose of this study is to assess the outcome of patients with RPS, treated with pre-operative IMRT.

Methods: From 2005 to 2008, nine patients (7 women and 2 men), mean age 52.3±12.6 years, with RPS were treated with pre-operative IMRT. Toxicities, loco-regional control, and survival free disease were analyzed. Toxicity was assessed according to the RTOG acute toxicity scale.
Results: Four patients (44%) had de novo RPS, and five patients (56%) had recurrent RPS after prior surgical resection. The median follow up was 26 (range: 3−39) months after radiotherapy. Median radiation dose was 50 at 2 Gy/fraction. Surgical resection after radiotherapy was performed in eight patients. In one patient, tumor progressed during treatment and was unresectable. Only minor toxicities were reported with grade 1 nausea in seven patients (77%) and vomiting in two patients (22%), during radiotherapy. No other toxicities or treatment related deaths were reported. Early and delayed postoperative complications included 1 abscess and 1 duodenal stenosis in two patients. At median follow up of 26 months, four patients (44%) were disease free. Five patients (56%) had disease progression, including tumor progression during radiotherapy (2 pts, 22%), local recurrence after surgery (2 pts, 22%), and/or distant metastasis resulting in death (2 pts, 22%). Four (80%) of the five patients with recurrent RPS after prior surgical resection, had disease progression.
Conclusion: Local control of de novo RPS is achievable with pre-operative IMRT with minimal toxicities. Henceforward, low toxicities with IMRT could allow dose escalation to improve outcomes in RPS patients.

9424 POSTER

Radiotherapy results of 131 patients with soft tissue sarcoma

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Background: In this retrospective study, our records of the patients with soft tissue sarcoma who underwent postoperative or definitive radiotherapy at Hacettepe University Faculty of Medicine Department of Radiation Oncology between January 1994 and December 2006 were reviewed. Cases were divided into two groups according to their location whether in the retroperitoneal region or not.
Material and Methods: Patients with soft tissue sarcoma excluding retroperitoneum, total of 101, median age 47; and patients with retroperitoneal sarcoma, total of 30, median age 53, were evaluated. In excluding retroperitoneum group, 37 of our patients were stage I, 24 were stage II, 37 were stage III, and 3 were stage IV (no distant metastasis, lymph node positive). According to histological degree, 5% cases were 1st, 36% cases were 2nd and 59% cases were 3rd or 4th degree. In retroperitoneal sarcoma group, 17 of our patients were stage I, 1 were stage II, 12 were stage III. According to histological degree, 7% cases were 1st, 50% cases were 2nd and 43% cases were 3rd or 4th degree. In all patients with 1.8−2.5 Gy per fraction total of 40−70 Gy radiotherapy doses were delivered (the median 60 Gy in excluding retroperitoneum group while 50 Gy in retroperitoneum group.
Results: In excluding retroperitoneum group, median follow-up after radiotherapy was 36 months while 26 months in retroperitoneum group. In excluding retroperitoneum group, 3 and 5 year general survival rates (G.S) were determined respectively 75% and 69%, disease-free survival rates (D.F.S) were 56% and 51%, local control rates (L.C) were 70% and 65%. On multivarian analysis: Surgical margins remained statistically significant for G.S ($p = 0.004$), DFS ($p < 0.0001$) and L.C ($p = 0.01$). Also histological grade was statistically significant in D.F.S ($p = 0.03$). In L.C., presenting symptome ($p = 0.04$; pain worse than swelling) was the other factor changing the prognosis. In retroperitoneal region group, 3 and 5 year G.S. rates were determined respectively 69% and 69%, D.F.S. rates were 52% and 52%, L.C. rates were 61% and 61%. On multivariate analysis: In G.S., operation status remained statistically significant ($p = 0.02$). In D.F.S gender ($p = 0.003$; better in women) and operation status ($p = 0.01$) were statistically significant factors. In L.C. only gender ($p = 0.02$) was the factor changing the prognosis.
Conclusion: Our results are supporting the literature which was not much hopeful for this rare kind of disease. It is also interesting that, gender was the most important prognostic factor for both D.F.S. and L.C. in retroperitoneal region group.

9425 POSTER

Administration of 24-hour intravenous infusions of trabectedin (Yondelis®) every 3 weeks in ambulatory patients with mesenchymal tumors via the disposable elastomeric pump Baxter LV10: a feasible, convenient, effective and patient-friendly palliative treatment option

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Background: Patients (pts) with sarcoma whose disease progresses after standard chemotherapy have poor outcome. In this setting, the DNA-transcription-interacting cytotoxic agent trabectedin (TRA) is efficacious and marketed in Europe. It is administered as 24-h i.v. infusion q3w with steroid co-medication. To overcome the inconvenience of hospitalization for drug delivery TRA is now given in Leuven via disposable elastomeric pumps, which facilitate ambulatory treatment and are compatible with the drug.
Material and Methods: Heavily pre-treated pts with sarcoma were offered chemotherapy with TRA 1.5 mg/m^2 as 24-h i.v. infusion via port catheter, either during hospitalization using electronic pumps or as outpatients using the Baxter LV10 disposable pump (drug dissolved in 267 ml NaCl 0.9%). Co-medication consisted of antiemetics and dexamethasone 2x4 mg days −1, 1, 2, 3.
Results: Between 09/07−12/08 28 pts were treated, and 21 (75%) elected outpatient therapy (9 F, 12 M, med. age 49 yrs, range 19−68). Common diagnoses included leiomyo- (5), lipo- (4), synovial (2) and myxofibrosarcomas. Pts had previous primary surgery (17), adjuvant radiotherapy (4) and surgery for relapse/metastasis (7). They had local relapse (2), distant metastasis (12) or both (7) when starting TRA, 19 had received previous chemotherapy with a med. number of 2 prior lines (range, 0−5). We administered 130 cycles of TRA in 21 pts, with a med. number of 3 cycles/patient (range, 1−24). Dose reductions were done in 60 cycles, mainly due to laboratory events. Best response (RECIST) was 4 confirmed PR, 6 SD, 11 PD. Grade 3/4 (CTC) AEs were limited to one case each of haemorrhage and lung embolism, other AEs were in line with published TRA experience. One port catheter contamination required replacement, one catheter tip thrombosis occurred and one extravasation due to needle dislocation was observed.
Conclusions: Outpatient administration of TRA as 24-h infusion via port catheters using Baxter LV10 pumps is preferred by 3/4 pts, is feasible, safe, efficacious and cost-efficient and should be considered routine practice in this clinical setting.

9426 POSTER

Trabectedin 3-hour infusion every 3 weeks in pre-treated advanced sarcoma patients: a compassionate-use administration experience

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Background: Limited data are available on the benefits of Trabectedin (Yondelis®; T) among compassionately-treated outpatients with sarcoma.
Material and Methods: A retrospective evaluation of safety and efficacy of T administered as 3-h infusion every 3 weeks (q3wk) to pre-treated sarcoma patients (pts) was done in a compassionate-use programme.
Results: A total of 104 pts were analysed. Baseline characteristics were: 77 (78%) had soft tissue sarcoma (STS) (leiomyosarcoma 23%, liposarcoma 22%, synovial sarcoma 10%, fibrosarcoma 9%, and malignant fibrous histiocytoma 8%), 25 (26%) had bone sarcoma (osteosarcoma 48%, Ewing sarcoma 32% and chondrosarcoma 20%) and 2 had gastrointestinal stromal tumours. Median (*m*) age was 40 yr, 83% had PS 0−1, 86% with metastatic disease, 40% had grade (G) 3 tumours, 34% had bulky disease; 81% received prior surgery and 53% prior radiotherapy. All received prior chemotherapy (anthracyclines 99% and ifosfamide 89%) with a *m* number of lines: 2 (1−9), and 32% of pts had received $\geqslant$ 3 lines. The *m* initial starting dose was 1.3 mg/m^2 (0.9−1.7); *m* number of cycles per pt: 2 (1−22); 16% received $\geqslant$6 cycles; 54% of pts had cycle delays and 32% underwent dose reduction (mainly due to non-haematological toxicity). Safety: G 3/4 haematological toxicities were neutropenia 42%, febrile neutropenia 7%, thrombocytopenia 27% and anaemia 17%. ALT and AST elevations occurred in 69% and 55% of pts, respectively. Most