No distant metastasis, no pretreatment and no second malignancies were allowed.

Localisation: head 88% (n = 79), corpus 11% (n = 10), tail 1% (n = 1) of the pancreas.

Grading (n = 81): G1: 12.5% (n = 10), G2: 33.5% (n = 27), G3: 48% (n = 39), G4: 6% (n = 5)

Radiotherapy: Total dose 44.8 Gy to the 90% isodose in 28 fractions of 1.6 Gy each applied in 2 fractions a day.

Chemotherapy: FA 300 mg/m^2, 5-FU 600 mg/m^2 (day 1–3 of radiotherapy), repetition 4 weekly.

Results: Median progression-free interval: 7.8 mts
Median survival time (all patients): 12.8 mts
One-year-survival-rate: 52.7%
Severe side effects (WHO-grade 3 and 4):
nausea/vomiting: 14.5%
diarrhea 0.0%
leuco-/thrombocytopenia: 10.0%
mucositis: 7.2%

Conclusions: This combined modality treatment improves the median survival rate to 12.8 mts for all patients comparable to other studies. The treatment duration could be reduced in comparison with similar treatments. Continuing this study and modulation of the therapy schedule will show more information about this effective palliative treatment.

1252 POSTER

Early postoperative intraperitoneal chemo-immunotherapy after curative gastrectomy for stomach cancer

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This prospective randomized study of the patients with primary stomach cancer was designed to determine clinical results of early intraperitoneal chemo-immunotherapy after curative gastrectomy. 53 pts with morphologically proven gastric cancer of stage II or III were treated surgically (gastrectomy). After operation (from the 5th day) all pts have received 5-FU 1 g/m2 + TNF-α 2 × 10^6 IU/m^2 + ds-RNA 8 mg intrapentoneally during ten days. Control group (74 pts) underwent surgical treatment without intraperitoneal chemo-immunotherapy. In pts group who were treated with chemo-immunotherapy three years survival rate was 64.2%, in control group three years survival rate was 55.4%. We observed 12 pts (22.6%) with relapses in chemo-immunotherapy group and in control group there were 36 pts (48.6%) with relapses. This difference was statistically significant. So, we conclude that early postoperative chemo-immunotherapy in pts with stomach cancer is effective. This method decreased the count of relapses in pts after surgical treatment.

1253 POSTER

Computer-assisted optimization of pancreatic treatment

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Purpose: Pancreatic cancer represents a particular challenge for treatment planning and was chosen to test the hypothesis that computer-aided optimization using a genetic algorithm can reliably produce treatment plans which meet or exceed the results of standard planning techniques.

Methods: Patients were planned according to a consistent protocol: 50 Gy to the target isocenter with beams having a 2.0 cm margin around the clinical target volume. Dose volume constraints applied were as follows: ≤18 Gy to 33% of the kidneys, ≤30 Gy to 33% of the liver, ≤45 Gy to 100% of small bowel, ≤45 Gy to the spinal cord. A score function was developed that favored target dose uniformity and simultaneously penalized distributions violating the dose constraints. Plans were optimized using a genetic alorithm (GA Ezzell, Med Phys 23: 293–305. 1996). Axial and non-axial beam arrangements were compared to a standard three-field distribution.

Results: Optimized plans consistently scored higher than standard plans. Non-axial plans tended to score higher than axial plans.

Conclusion: These results demonstrate that computer-aided optimization can improve conventional planning using a feasible number of beams and standard treatment equipment.

1254 POSTER

Long follow-up of gastric lymphoma

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Purpose: Gastric lymphoma is classified as low-grade MALT (mucosa-associated lymphoid tissue) and high-grade primary gastric lymphoma (PGL) a difference that may be more apparent than real. We analyzed the clinical characteristics and survival of 27 patient with PGL diagnosed in our hospital between February 1982 and December 1995.

Results: At a mediam follow-up of 56 m (17–155) 25 of the 27 patients are alive. Overall survival at 7 y is 93% and relapse free survival (RFE) 87%. We do not find any statistically significant difference in survival between low, medium and high-grade neither between MALT and no-MALT PGL nor Helicobacter pylori positive or negative.

Male/female	13/14
Median age	56 y (18–82)
Fenotype B	27/27
MALT/No MALT	14/13
Helicobacter (+)	9/18
Stage IE	8 (30%)
IIE	11 (41%)
IIIE	1 (3%)
IVE	7 (26%)
Grade. High	11 (41%)
Medium	4 (15%)
Low	12 (44%)
Treatment: Surgery (S)	5 (18.5%)
Chemotherapy (QT)	6 (22%)
S+QT	13 (48%)
RT+QT	2 (7%)
S+QT+RT	1 (4%)

Conclusion: Primary gastric lymphomas, in any of its clinical presentations have a very favorable behavior. We do not find overall survival difference between Malt and no-Malt gastric lymphomas. (P = 0.7)

1255 POSTER

Paclitaxel (T) plus 5-fluorouraciL (5-FU): A novel and very active regimen for advanced gastric cancer (AGC). A phase II trial

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Purpose: To better explore the activity of T in AGC, and a possible synergism between T and 5-FU and their low toxicity profile.

Methods: Patients with AGC, CT naive, measurable disease, KPS > 50, life expectancy ≥3 months receive on outpatient basis: T −175 mg/m2 i.v. in a 3 hour infusion on day 1 with premedication and 5-FU −1.5 g/m2 i.v. in a 3 hour infusion on day 2, every 21 days (maximum of 7 cycles). A system to assess clinical benefit (CB) based on KPS, pain and weight gain was used in this trial.

Results: 31 patients were enrolled (20 male and 11 female) and 27 are eligible for evaluation. Median age was 61 (31–70). Median KPS 70 (60–80). 160 cycles of CT were given. There were 17 (63%) objective responses (95% C.I.: 44%–81%), including 5 (18.5%) CRs and 12 (44.57%) PRs. 2 patients had a minor response, with a great subjective clinical improvement. 3 CRs with extensive liver involvement had the response confirmed pathologically. 2 gastric CRs were confirmed by endoscopy and biopsy. The median overall survival is 12 months (1–19+). 1-year overall survival is 58%. The regimen was very well tolerated. Alopecia WHO grade 2 occurred in 2 patients and 3 in 24. Neutropenia grade 2 in 9% and 3 in 3%; infection grade 2 in 3%; allergy grade 1 in 2.5%; anemia grade 2 in 7% and grade 3 in 2.5%; oral grade 1 in 10%; neuropathy grade 1 in 33% and 2 in 1.7%; mialgia grade 1 in 26% and grade 2 in 4% and vomiting grade 1 in 12% and 2 in 4% of the cycles. CB responses were observed in 16 (59%) patients. Our in vitro studies with culture of gastric cell lines and so far some synergism between the two drugs has been demonstrated. This novel regimen is very effective in AGC, producing a high rate of ORs, at the cost of a very acceptable toxicity profile. It translated into clinical benefit and excellent palliation for the majority of the patients.