metastasis concurrently), peritoneal seeding in 4 and distant metastasis (mostly liver) in 12 patients. The median survival duration is 17 months.
Conclusion: This adjuvant regimen was well tolerated and can be easily administered after surgery for locally advanced pancreatic cancer.

730 POSTER

Therapeutic strategy for superficial cancer of the esophagus

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Purpose: To clarify the optimal treatment strategy for superficial esophageal cancer, mucosal and submucosal cancer, based on the results of surgical treatment.
Patients and methods: Between 1984 and 2003, 136 patients (121 males and 15 females, mean age 62 years) with a superficial esophageal cancer underwent radical esophagectomy. We reviewed the clinicopathologic results and postoperative survival of these patients.
Results: The depth of tumors resected were mucosal layer in 33 patients and submucosal layer in 103 patients. Patients with Tis (n = 5) or lpm cancer (n = 8) had no positive node, however, 2 out of 20 patients with mm cancer had lymph node involvement (N1). Forty (38.9%) out of 103 submucosal cancer (T1b) patients had nodal involvement (N1), and 8 had nodal metastases away from regional lymph node (M1-lym). 5- and 10-year overall survival rate for patients with mucosal cancer were 87% and 52%, and 60% and 50% with submucosal cancer. Operative mortality and hospial mortality rate were 1.4% and 2.2%. Only one out of 33 mucosal cancer patients died of recurrent disease (3%), and 19 died of recurrent disease in submucosal cancer patients (18%). Other maligancies were associated in 52 patients (38%). Half of patients died of other malignancies after 5-year survival. 5- and 10-year cause-specicific survival rate with mucosal cancer were 93% and 89%, and 80%, 78% with submucosal cancer. While there was no difference in survival between N0 and N1, there was a significant difference in survival of patients with or without other malignancies ($p < 0.05$).
Conclusions: Most of mucosal cancer could be cured by the local surgical treatment, such as endoscopic mucosal resection (EMR) and laser therapy. Radical esophagectomy should be considered for patients with mm cancer who predicted with nodal involvement. Radical esophagectomy with lymph node dissection is necessary for patients with submucosal cancer. Control of other malignancies is important to improve the survival of patients with superficial esophageal cancer.

731 POSTER

High-dose-rate brachytherapy for cancer of the biliary tract

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Background: Although cancer of the bile duct is rare, the prognosis for this tumor type is poor. Surgery is the only curative treatment, however most patients present with a contraindication for radical surgery. Our aim is to evaluate combined treatment with high-dose-rate brachytherapy (HDT-BT) and conventional fractionated external beam radiotherapy (ERT) for unresectable, locally advanced biliary tract cancer. We also assessed the feasibility of treatment with HDR-BT alone for aged patients.
Material and methods: Between 1986 and 2004, 54 consecutive patients with unresectable, locally advanced biliary tract cancer were treated with HDR-BT (29 men, 25 women; median age 72 years, range 50 to 88). The median HDR-BT dose was 30 Gy prescribed to a point 1 cm from the midline. Thirteen patients received HDR-BT alone (median age 84 years) and 41 received HDR-BT and ERT (median dose 40Gy). ^{60}Co was the source for HDR-BT until 1998 and then ^{192}Ir was used.
Results: The overall survival rate at 1, 2 and 5 years was 41.5%, 27.9% and 11.6% respectively. Survival was no significantly different between the patients treated with ERT and HDR-BT and those treated with HDR-BT alone. Acute gastrointestinal symptoms during radiotherapy were acceptable with 2 cases of biliary fistula and 2 of liver abscess as late complications.
Conclusions: Combined radiotherapy which ERT (40 Gy) and HDR-BT (30 Gy) is feasible and complications are within acceptable limits. HDR-BT alone provided reasonable local control and improved quality of life for aged patients since they could be treated as outpatients.

732 POSTER

Role of radiotherapy in treatment of portal vein thrombosis from hepatocellular carcinoma

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Background: To analysis the role of radiotherapy in treatment of portal vein thrombosis (PVT) from hepatocellular carcinoma (HCC).
Methods: PVT from HCC were treated with 3 dimensional conformal radiotherapy (3D-CRT) and evaluated with CT scan after radiotherapy. The radiation dose ranged from 40 Gy/16 fractions to 60 Gy/30 fractions, which was determined according to the volume of normal liver in 20 Gy isodose distribution and bowel in 50 Gy equivalent dose. Response was determined by measuring the extent of PVT on CT scan at 0, 1 and 3 months after completion of radiotherapy. Median follow-up period for response evaluation was 4 months.
Results: Forty six patients were enrolled and 39 of them who received at least 70% of the planned dose and checked follow-up CT scan were eligible for this analysis. Size of GTV ranged from 3.9 to 17.7 cm, and the median was 9.6 cm. Complete or marked improvement of PVT was observed in 18 patients (45%), and 17 patients (43%) showed no further progression. There was no dose-response relationship among dose groups of 45 Gy/15 fractions, 48 Gy/12 fractions, 50 Gy/20 fractions, and 60 Gy in 30 fractions for the reduction of PVT. However, higher dose group (50 Gy or higher) showed a trend of lower rate of PVT progression (20% vs. 7%) and smaller tumors (longest diameter of GTV less than 8 cm) showed a tendency of higher response rate than large tumors (64% vs. 41%, $p = 0.12$). Transarterial chemoembolization (TACE) was possible after radiotherapy in 19 patients (57%).
Conclusion: Radiotherapy with dose of 45 Gy in 3 Gy fractions (or a TDF value $\geqslant$90) was effective for palliation of PVT in patients with moderate size of HCC. But higher dose to focal PVT should be investigated for higher response rate.

733 POSTER

The impact of conformal therapy in the treatment of anal cancer

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Introduction: Conformal therapy has been introduced in an attempt to alleviate the acute toxicities related to radiation and concurrent chemotherapy. This study reports the long-term outcomes on local control and survival results from this treatment and compares with those from conventional techniques.
Materials and Methods: From 1997–2003, 57 consecutive patients were treated with conformal therapy (6-field arrangement) to deliver 54 Gy in 30 fractions without interruption and concurrently 2 cycles of chemotherapy during weeks 1 and 6 of radiation using 5-Fluorouracil (5-Fu, 1000 mg/m^2/day, 96 hour continuous infusion) and Mitomycin C (MMC, 10 mg/m^2, bolus on day 1) while from 1990–2002, 60 patients were treated conventionally using antero-posterior fields followed by a 3 field arrangement, to deliver 52–59.4 Gy in 25–33 fractions in split course therapy with 2 cycles of concurrent chemotherapy using CI of 5-Fu and either MMC or Cisplatinum (75 mg/m^2) as a bolus on day 1.

Table 1: Tumour characteristics and acute toxicity data for the two techniques

Tumour characteristics and patient acute toxicity data	Conformal Therapy	Conventional Therapy
T2	50%	60%
T3	32%	28%
T4	18%	12%
N0	60%	70%
N+	40%	30%
Acute toxicity rate $\geqslant$G3		
GI	5%	11%
bone marrow	12%	16%
skin	18.5%	43.3%

Results: Patients treated with conformal therapy and conventional therapy respectively had actual 5-year local recurrence free rates of 90.7% and 66.1% ($p < 0.02$), 5-year disease free survival rates of 74% and 48%($p = 0.0095$) and overall survival rates of 74% and 55% ($p < 0.005$). In the multivariate analysis, the nodal status is the most significant factor

for local control ($p < 0.0003$) followed by radiation technique (conformal >conventional) ($p < 0.02$). Tumor distribution and acute treatment toxicities data from the two techniques are shown in Table 1.
Conclusion: Conformal therapy contributes significantly in the local control and improves the therapeutic index of patients with anal canal cancer. It is now the standard technique at our institution.

734 POSTER

Histopathological response to preoperative chemoradiation for resectable pancreatic adenocarcinoma: the French phase II FFCD 9704-SFRO trial

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Purpose: To define and evaluate histopathological response rates with preoperative chemoradiation (RT-CT) for resectable pancreatic adenocarcinoma.
Patients: Between January 1998 and March 2003, 41 patients (pts) (25 males; mean age: 59 years; range: 33–75) with localized, potentially resectable pancreatic adenocarcinoma were treated with 50 Gy combined with 5-Fluorouracil (300 mg/m^2/d; d1-d5; week 1–5) and Cisplatin (20 mg/m^2/d; d1-d5 and d29-d33). Radiographic restaging was performed 4 to 6 weeks later and pts presenting with resectable disease underwent surgical resection.
Results: Twenty six (63%) of 41 pts underwent curative surgery. Standardized histologic response was measured and graded by a single pathologist. According to the difficulty to characterize viable cells by conventional anatomopathological evaluation, the effectiveness of the preoperative chemoradiation was defined by the proportion of severly degenerative cancer cells (SDCC), their density and histological distribution and the proportion of necrotic tumoral tissue. SDCC cancer cells were defined by a nuclei absent, piknotic or irregular-shaped, and an acidophilic or vacuolated cytoplasm. Eleven of 24 (46%) specimens presented more than 80% of SDCC, and 8/11 (72%) specimens were associated with large necrosis areas. The histologic distribution was characterized by the low density of nonaffected cancer cells, principally located in the center of the tumor, and an important fibrous and amorphous connective tissue associated with cancer-cells' defects (type A of the Ishikawa's classification). Histologic complete response was observed in one specimen, and 9/24 (37%) specimens were characterized by 50 to 80% of SDCC, with fairly the same histologic distribution. Finally, 4/24 specimens presented with a low rate of SDCC, few necrosis area and several non affected cancer cells (type C of the Ishikawa's classification).
Conclusion: Preoperative 5-Fluorouracil-Cisplatin-based concurrent RT-CT for resectable pancreatic adenocarcinoma provides antitumoral effect, with 20/24 (83%) specimens presenting an histological response rate superior to 50% and one complete histopathologic response. With regard to the feasibility of this therapeutic schedule and the rate of major histologic response, this approach could offer a clinical benefit. Further gemcitabine-based chemoradiation regimens, will determine the predictive factors of the treatment response, and the improvement in survival.

735 POSTER

Randomized comparison of capecitabine plus oxaliplatin (CapOx) versus capecitabine plus gemcitabine (CapGem) versus gemcitabine plus oxaliplatin (GemOx) in advanced pancreatic cancer

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Background: Gemcitabine, oxaliplatin, and capecitabine are active agents in pancreas cancer. This study was performed to define an optimal regimen for combination therapy.
Methods: Between July 2002 and May 2004, 190 patients were recruited from 44 centres. Patients received 3-week regimens of either capecitabine 2×1000 mg/m^2 po d1–14 plus oxaliplatin 130 mg/m^2 iv d1 (CapOx) or capecitabine 2×825 mg/m^2 po d1–14 plus gemcitabine 1000 mg/m^2 applied as a 30-min infusion d1+8 (CapGem) or gemcitabine 1000 mg/m^2 applied as a 30-min infusion d1+8 plus oxaliplatin 130 mg/m^2 d8 (GemOx). The primary endpoint of te trial was progression-free survival at 3 months.
Results: Patients in the CapOx, CapGem, and GemOx-arms were well balanced according to the strata Karnofsky Performance status (KPS >70% in 92% vs 89% vs 90%) and stage of disease (metastatic disease in 76% vs 74% vs 75%). Median age was 63 years (range 37–75). Patients received a median of 4 cycles of treatment. In a per patient analysis of CapOx vs CapGem vs GemOx, hematological grade 3–4 toxicity occurred in 8%, 18%, and 21%, while non-hematological grade 3–4 toxicity was documented in 55%, 39%, and 51%, respectively. 167 patients were evaluable for response. The analysis of CapOx vs CapGem vs GemOx did not show any complete remission, while partial responses were obtained in 19%, 21%, and 12% of patients, and stable disease was documented in 33%, 41%, and 40% for a disease control rate of 52%, 62%, and 52%, respectively. Median PFS was comparable between CapOx, CapGem and GemOx treatment arms and amounted to 129 days, 143 days, and 102 days respectively with a median progression-free survival at 3 months of 54%, 59%, and 56%. Median overall survival for CapOx was 245 days, for CapGem 238 days, and for GemOx 206 days, respectively (two-sided logrank test, $p = 0.57$).
Conclusions: The current evaluation of this trial indicates a comparable efficacy with regard to the primary endpoint and tolerability for the investigated regimens CapOx, CapGem, and GemOx.

736 POSTER

Outcome of node negative gastric cancer personal experience on 278 patients

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In recent decades, the incidence of gastric cancer has declined, but the prognosis in the Western countries has not improved, the 5-year survival being 20–30%. Lymph node involvement is an important prognostic variable in gastric cancer. A surgical approach of potentially curable gastric cancer, including extended lumphadenectomy, seems to give better results when compared with less radical procedures. The therapeutic value of an extended lymphadenectomy in unproven in randomized trials; however, the high long-term survival rates reported by experienced centers after systematic, standardized extensive D2 and D3 gastrectomies are encouraging. In order to evaluate the outcome of node-negative gastric cancer who underwent curative gastric resection at San Raffaele Hospital of Milan, between 1987 and 2004.
Materials and methods: Patients: Between 1987 and 2004, 278 patients (157 males, 121, females) underwent a R0 gastric resection for gastric cancer, performed at the Department of Surgery, Vita-Salute San Raffaele University, Milan The surgical procedure consisted of 39 (14%) total and 239 (86%) subtotal gastrectomies. A standard dissection encompassing N1 lymph nodes was defined as a D1 dissection, whereas complete removal of N2 lymph nodes was considered a D2 dissection. The extent of lymph node dissection was limited D1 (n = 120, 43%) or extended D2 (n = 152, 55%) and D3 (n = 6, 2%). The mean number of examinates lymph nodes was 16.
Statistical analysis was carried out using the Statistical Package for the Social Sciences (SPSS 11.0). The results were expressed as mean±SD. Overall survival was calculated according to the Kaplan-Meier method. Frequencies were compared by the Pearson's chi square method, and the multivariate analysis was performed using the Cox proportional hazards model, all with two sieds at a significance level of $p < 0.05$.

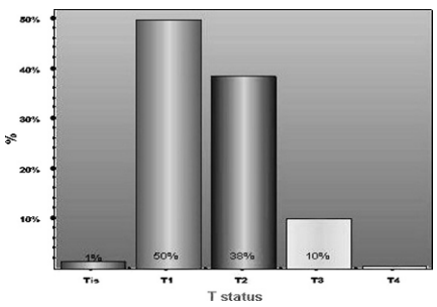

Fig. 1.

Results: The tumor stage was: T1 (n = 143), T2 (n = 105), T3 (n = 10), T4 (n = 2) (Fig 1). The median age of patients with node-negative gastric cancer was 65+/-11 years. The median tumour size was 3.8 cm (range