sex as prognostic factors. An additional analysis omitted all pts surviving 2 years or more.
Results: The distribution of patients characteristics was Stage IV 66%, Stage II-III 34%; prior therapy: 30%; age: 106 over 65, 44 over 75, 14 over 80; sex: 94 male. Overall median survival was 16.4 mos (14.7−18.1 mos). Overall one year survival was 62% two year survival was 29% and three year survival was 21%. Age greater that 65, 75 and 80 were not adverse prognostic factors for treatment p: 0.69−0.82. Prior treatment was not an adverse prognostic factor. Analyses found no significant differences in the distribution of patient chararcteristic within the subsets of patient of all ages and treatment histories. Analyses excluded pts survivng 2 years or more found a median survival of 12.5 (9.6−15.5) mos. There were no treatment related deaths nor unanticipated toxicities. Hospitlizations for treatment related adverse events including crossover regimen occur in less than 1% of cycles. The limiting toxicity of GFLIP is late mild-moderate neurotoxicity and on adding docetaxel brief moderate/severe cytopenia and fatigue.
Conclusion: Low dose GFLIP followed by GFLIP/docetaxel is safe and offers survival benifit for the majority of pts including bioth the elderly, the previously treated, and the poor risk as suggested by analyses omitting 2 year survivors.

3526 POSTER

Prognostic value of carbohydrate antigen (CA)19−9 decrease in response to chemotherapy for advanced pancreatic adenocarcinoma (PA)

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The assessment of chemotherapy (CHT) activity in PA is hampered by fibrotic and desmoplastic reactions. A decrease of basal CA19−9 level >49% during CHT predicts better survival (OS). This study was aimed to determine whether a different cut-off level of basal CA 19−9 decrease may allow to better assess response to CHT. Between April '97 and January '07, 251 chemo-naive patients with stage III (N = 88; 35%) or metastatic (N = 163; 65%) citologically proven PA were enrolled in 5 trials at our institution to receive either gemcitabine alone (gem; N = 32) or 4-drug gem-based combination (4D; N = 219). Response to CHT was assessed by bimonthly CT scan while CA19−9 was detected on a monthly basis. Median (m) and 1y OS was 10 months and 39%. OS per response group is reported in table 1. The differences among OS curves were significant (progressive disease [PD] vs stable disease [SD] $p < 0.00001$; PD vs partial response [PR] $p < 0.00001$; SD vs PR $p = 0.0007$). Baseline CA19−9 was detected in 248 patients (99%) and was elevated in 210 (84%). In 190 of 210 patients (90%) CA19−9 variation during CHT was available. OS per CA19−9 response group is reported in table 1. OS for group D was significantly better than for other groups (D vs B $p = 0.0004$; D vs C $p = 0.0004$; D vs A $p < 0.00001$). No difference was observed between groups B and C ($p = 0.14$) and A and B ($p = 0.18$), while group C had better OS than group A ($p = 0.006$). Based on these results we recommend to use the rate of patients with basal CA19−9 decrease >89% as a complementary measure of outcome when assessing CHT activity against PA.

Table 1.

Response	Number	mOS	1y OS
PD	66 (26%; gem 69%; 4D 20%)	4.5	8%
SD	74 (29%; gem 22%; 4D 31%)	10.2	34%
PR	111 (44%; gem 9%; 4D 49%)	15.0	60%
↓ CA19.9 <50% group A	61 (32%; gem 50%; 4D 29%)	7.4	18%
↓ CA19.9 50−69% group B	23 (12%; gem 19%; 4D 11%)	9.5	26%
↓ CA19.9 70−89% group C	50 (26%; gem 23%; 4D 27%)	10.0	36%
↓ CA19.9 >89% group D	56 (30%; gem 8%; 4D 33%)	16.6	74%

3527 POSTER

Outcome of the non randomized patients in the FFCD 9102 trial: chemo-radiation followed by surgery compared with chemo-radiation alone in squamous cancer of the esophagus

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Background: for locally advanced thoracic oesophageal cancers, the FFCD 9102 trial have demonstrated that for responders chemo-radiation only was equivalent to chemo-radiation followed by surgery in terms of overall survival [1]. What about non randomized patients?
Materials and Methods: out of 451 patients, 192 were not randomized because of no objective response or improved dysphagia, contraindication to either surgery or continuation of chemo-radiation, patient's refusal, death or no further treatment.
Results: at the end of the induction chemo-radiation, there was no difference between randomized and non-randomized patients in term of age, tumor height and diameter, doses of chemotherapy or radiotherapy. However, weight loss, body surface and Spitzer QoL Index were significantly different. Duration of follow-up was identical: 47.3 months vs 48.1 months (NS). Overall survival was significantly lower in non-randomized patients: median survival 11.5 months (SE = 1.09 months) vs 18.9 months (SE = 1.03 months) in randomized patients (HR = 1.40 [95% CI, 1.13 to 1.74], $p = 0.0024$). In the non-randomized group 112 patients were operated on, among them 80 had R0 resection (42%). For all patients operated on median survival was 17.3 months (SE = 0.65 months) versus 6.1 months (SE = 0.46 months) in non-operated patients ($p < .0001$), and was not different from survival of the randomized ones ($p = 0.58$).
Conclusion: surgery is a valuable option for patients non responding to a planned exclusive chemo-radiation therapy.

References

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3528 POSTER

Fatigue in pancreatic cancer: the potential link between exertional dyspnea, exercise limitation, skeletal musculature and neurohormonal activation

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Background: In cancer, dyspnea and reduced exercise capacity are frequently seen, but their origin is unclear. We suggest, the symptoms are due to metabolic changes within the skeletal musculature as has previously been shown for patients with heart failure.
Methods: We examined 50 patients with pancreatic cancer (PaCA, age 60±10 years [mean±SD], 20 female). Symptom limited exercise capacity (treadmill), body composition (DEXA), left ventricular (LV) systolic and diastolic function (echocardiography) and limb post-ischemic peak blood flow (i.e. muscle perfusion) were assessed. 40 healthy subjects served as controls (age 57±10 years, 19 female).
Results: 49% of PaCA patients were classified as NYHA class II or III. In PaCA patients, exercise capacity (peak VO2) was reduced by 30%, anaerobic threshold by 13% and peak VO2/kg lean tissue by 33%, while VE/VCO2-slope as a measure of ventilatory inefficiency was increased by 14% (table 1). Compared to controls, patients with PaCA had reduced limb lean mass (9%), lower fat tissue mass (32%). Total peak VO2 closely related to limb lean mass in controls ($r = 0.81$, $p < 0.0001$), but much less in PaCA ($r = 0.42$, $p = 0.004$). LV ejection fraction and diastolic function (E/A, E/e′) were normal and not different between groups. Markers of cardiovascular neurohormonal activation like mid-regional (MR) pro-adrenomedullin (60%) and MR pro-ANP (73%) as well as markers of inflammation (sTNFRs, procalcitonin) were increased in PaCA patients (all

p < 0.0001). Resting blood flow was elevated in PaCA in both arm (35%) and leg (72%), although peak blood flow in both arm and leg did not show any differences. The flow mediated flow was increased in PaCA by 46%.
Conclusion: Exercise capacity is significantly impaired in patients with pancreatic cancer, independent of cardiac function, and muscle blood flow. We hypothesise that symptom generation and exercise intolerance in cancer patients develop due to metabolic aberrations leading to intrinsic changes within the skeletal muscle. The pathophysiology of shortness of breath in cancer is similar to that in heart failure.

Table 1

Parameter	Patients (N = 50)	Controls (N = 40)	p-value
Peak VO_2 [mL/min/kg]	21±5.69	29.5±7.8	<0.0001
Anaerobic threshold [mL/min/kg]	12.7±3.06	15±3.27	0.003
Peak VO_2/kg lean tissue [mL/min/kg]	28.6±7.87	43.1±8.43	<0.0001
V_E/V_{CO2} slope	32.5±7.8	27.5±4.94	0.002
BMI [kg/m^2]	22.8±3.06	25.5±3.9	0.0007
Limb lean tissue mass [kg]	20.5±4.42	23.2±6.44	0.025
Lean tissue mass [kg]	49.8±9.26	51.8±12.3	0.4
Fat tissue mass [kg]	15±7.39	21.7±8.85	0.0003
LV ejection fraction [%]	60±8	62±5	0.3
MR pro-adrenomedullin [nmol/L]	0.75±0.69	0.47±0.1	0.0002
MR pro-atrial natriuretic peptide [pmol/L]	123±177	71±35	0.05
TNF receptor-1 [pg/mL]	1943±1441	1131±265	<0.0001
TNF receptor-2 [pg/mL]	2684±1413	1472±409	<0.0001
IL-6 [pg/mL]	6.9±8.7	2.0±0.9	<0.0001
Procalcitonin [ng/mL]	1.005±4.3	0.019±0.008	<0.0001
Resting blood flow arm [mL/100g·min]	6.71±3.54	4.96±1.93	0.02
Resting blood flow leg [mL/100g·min]	6.03±4.25	3.51±1.61	0.006
Flow mediated flow [mL/100g·min]	10.2±6.16	7±3.63	0.02

3529 POSTER

A phase II trial of oxaliplatin with high-dose of 5-fluorouracil and leucovorin in the first-line treatment of inoperable, locally advanced or metastatic biliary tract cancer

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Background: Advanced bile duct cancer (BTC) is a dismal disease. At the present, no standard chemotherapy is recommended. However, 5-fluorouracil (5-FU)-based is the conventional regimen in the current practice. Oxaliplatin (OXA) with 5-FU/leucorvin (LV) has approved that a better response rate and survival than 5-FU/LV in patients with metastatic colon cancer. The aim of this study was to investigate the efficacy and toxicity of OXA with 48-hour infusion of 5-FU/LV in advanced BTC as a first line and outpatient-based regimen.
Methods: Patients must have histologic confirmation carcinoma of intrahepatic, perihilar area, distal common bile duct, gallbladder and periampular vater area. Patients must have at least one measurable site of disease. Patients could not have received prior chemotherapy for advanced disease. Patients older than 20 years of age and ECOG performance status (PS) of 0−2 were included. The treatment cycle consisted with OXA (Oxalip®, TTY Biopharm Co. Ltd, Taipei, Taiwan) 85 mg/m^2 in D5W 500 ml run 2-hour premdications with dexan and 5-HT3 antagonist, followed by 48-hr infusion of 5-FU 3000 mg/m^2 and LV 100 mg/m^2 by Infusor (Baxter, USA) biweekly. The response evaluation was based on the RECIST criteria. Measurement of response was performed after every 2 months of treatment. The toxicity was assessed according to NCI common terminology criteria for adverse events version 3.
Results: From August 2005 to December 2006, 34 chemonaive patients with advanced BTC were enrolled from four sites, but two cases were not eligible for study. There were 13 females and 19 males with a median age of 62. The PS (0/1/2) was 19/11/2. The sites of disease locations included 7 intrahepatic cholangicarcinomas, 1 perihilar cancer, 10 gallbladder cancers, 5 distal common bile duct cancers, 8 ampular vater cancers and 1 unclassified location, respectively. A total of 29 patients were evaluated for response. The partial response was 6/29 (20.7%, 95% CI 8.71−40.26%), stable disease 10/29 (34.5%) and progression disease 13/29 (44.8%), respectively. The median time to progression was 116 days and the median survival was 256 days. The major Grade III/IV toxicity among 32 patients were neutropenia 6/32 (15.6%), stomatitis 3/32 (9.3%), thrombocytopenia 2/32 (6.3%), diarrhea 2/32 (6.3%), and neuropathy 1/32 (3.1%), respectively. There were no treatment-related deaths.
Conclusion: The biweekly OXA and 48-hour infusion of 5-FU/LV in patients with advanced BTC showed efficacy, tolerable toxicity and a feasible treatment for OPD-base setting.

3530 POSTER

Preliminary results from GEPTOSIS, the international study on medical treatment practice and outcomes in gastroenteropancreatic (GEP) neuroendocrine tumors (NET): variability in the time between initial diagnosis and treatment of GEP NET

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Background: There is high variability in the normal clinical practice for the treatment of GEP NET and how this may impact the clinical course of the disease is unclear. GEP NETs are generally slow-growing tumors thus treatment generally is non-aggressive. The objectives of this study are to describe treatment regimens used for newly diagnosed GEP NET patients and examine their impact on clinical outcomes, in particular outcomes associated with given doses of Octreotide LAR. Baseline characteristics and symptoms for the first 29 patients enrolled in the study are reported here.
Materials: GEPTOSIS (Neuroendocrine GEP Tumors: An Observational Study on the Impact of Sandostatin LAR) is an open label, multicenter, non-comparative, longitudinal, observational study in recently diagnosed, medically naive, functionally active GEP NET including carcinoid, insulinoma and glucagonoma. Observations include the efficacy on biochemical parameters (Chromogranin A, 5-HIAA), symptoms, and tumor volume, as well as safety and tolerability. Data are entered via a Palm-based device and transferred to a central study database. Data were collected under conditions of normal clinical practice in quarterly intervals over a period of 18 mo. It is projected that up to 276 patients will be recruited from about 100 sites world-wide.
Results: As of April 2007, 87 patients were enrolled from 38 sites worldwide; for 29 patients baseline data were available. The mean age (SD) of the patients is 58.7 yrs. (12.3); 61% are male. Diarrhea was the most common symptom at baseline (n = 18, 62%), followed by tiredness (48%), flush (45%), loss of appetite (34%), abdominal pain (21%), muscle pain (7%), vomiting and nausea (both 3%). The reported symptoms were mostly rated as moderately severe (46%), 28% were mild, 17% were severe but not incapacitating, while 9% were severe and incapacitating. The majority of patients (69%, n = 20) were enrolled in the study within 1 yr of diagnosis and 31% (n = 9) after more than 1 yr. Twenty six (90%) patients received Octreotide LAR either alone (n = 21) or in combination with surgery (n = 2), chemoembolisation (n = 1), surgery + chemoembolisation (n = 1), or radiotherapy (n = 1, for lung metastasis). 20 mg was the most common starting dose (n = 14) followed by 30 mg (n = 7) and 10 mg (n = 3).
Conclusions: Early data from GEPTOSIS indicate that diarrhea is the most common symptom at baseline. Most patients were treated with Octreotide LAR either alone or combined with other treatment. Most Octreotide LAR treated patients started with a 20 mg dose. The time between diagnosis and study entry or initiation of treatment varies considerably between patients. It has to be clarified how this might have an impact on the clinical outcome. As more data become available greater insight may be made into outcomes associated with time between diagnosis and treatment of GEP NET patients.

3531 POSTER

Toxicity and outcomes of chemoradiation without elective nodal irradiation after chemotherapy for unresectable pancreatic cancer

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Background: Optimal strategy for treating locally advanced pancreatic cancer (LAPC) is uncertain in terms of duration of chemotherapy (C) and timing of radiation (RT). This is a retrospective review to evaluate