intermediate prognosis and 19 had poor prognosis. Creatinine clearance was normal in 95% of patients. Nineteen patients were randomized to bolus bleomycin and 22 patients were randomized to 72 hour CI. Recruitment was stopped due to slow accrual.
Eleven patients developed BIPT (27%) as defined by HRCT: in the bolus group, 5/19: in the CI group 6/22 (26.31% vs 27.27% respectively, p = 1). Among 11 patients with BIPT, alveolar damage was observed in 4 patients (36%), interstitial damage in 5 patients (45%) and both in 2 patients (18%). No significant differences were observed in terms of response rate and survival.

Type of toxicity	Bolus (n = 19)	Infusion (n = 22)	p-value	Global (n = 41)	%
Alveolar damage	2	2	0.89	4	36
Interstitial damage	2	3		5	45
Both	1	1		2	18

Conclusions: among patients with aGCT treated with BEP, bleomycin administered as a 72-hour CI did not decrease the incidence of BIPT when compared to bolus administration.

7175 POSTER

Bilateral testicular germ cell tumors – a single hospital experience

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Background: Testicular germ cell tumour (TGCT) is the most common solid tumour in young adults (15−35 years) accounting for only 1% of all neoplasm. Incidence TGCT is increasing and the improvement in survival may lead to an increased incidence of bilateral tumours. It is also known that previous TGCT is the main factor for developing contralateral germ cell testicular tumour with a RR of 500 to 1000. We examined the incidence, prognosis, clinical and histological characteristics, treatment and outcome of patients with bilateral testicular germ cell tumours based on a 15-years long experience from a single institution.
Material and Methods: We reviewed the charts from all patients treated for a testicular tumour germ cell at Hospital Vall d'Hebron in Barcelona, Spain. The information was retrospectively obtained from the patients' hospital. All the patients were evaluated with clinical history, physical exam, serum markers (aFP, LDH and βhCG), ultrasonographic evaluation of the testicles, computed tomography (CT) scans of the chest, abdomen and pelvis, surgery, location and histology of first and second tumour, treatment after of the surgery and followup.
Results: From 151 patients with testicular germ cell tumours, 8 (5.3%) developed bilateral tumours, seven (4.6%) were metachronous and one (0.7%) synchronous tumours. Median age at presentation of the first tumour was 26 years. Second tumours 100% were diagnosed through scrotal ultrasound. Two patients underwent testis sparing surgery for the second tumour. When comparing histologies, most of the cases (85%) had the same histology pattern(seminoma) than the initial tumour. With a median follow-up of 73 months after the first testicular tumour and 40 months from the second tumour all patients are alive without evidence relapse. All the patients are alive without evidence of disease.
Conclusions: Survival in patients with bilateral germ cell testicular tumours (BGCTT) is similar to the patients with unilateral germ cell testicular tumour. There is not standard therapy to treat BGCTT and each patient requires a tailored therapeutic treatment.

7176 POSTER

DNA repair genes transcripts quantification in low and high grade bladder tumours

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Background: Bladder cancer is the second most frequent urogenital neoplasia in men and is the eighth most prevalent malignancy in women. Smoking and exposure to aromatic amines are the most important causes. The prolonged exposure of bladder cells to various substances can result in accumulation of lesions in the genome. DNA repair systems play a significant role in protecting the integrity of the genome against cytotoxic and mutagenic agents and their normal expression must be tightly regulated to avoid cancer development. In this context, our goal is to quantify the transcripts of human DNA repair genes *APE1, XRCC1, POLB* and *POLK* by Real-Time PCR by comparing low- and high-grade bladder tumors samples.
Material and Methods: We analyzed bladder tumor samples from 33 patients, with mean age of 68 years, being 26 men and 7 women. The samples were divided in low-grade tumors (n = 17) and high-grade tumors (n = 16). After surgical resection, the molecular procedure included total RNA isolation by TRIZOL method followed by RNAse-free DNAse treatment. The cDNA synthesis was conducted (1 μg) by using random primers. The uniplex reactions of Real Time PCR employed the SyBr Green methodology. *GAPDH* was chosen as a calibrator gene (constitutive expression). The gene expression analyses were compared with an inflammation case (cystitis).
Results: Low- and high-grade bladder tumors exhibited differences in the profile of expression for transcripts analyzed. The *APE1* and *XRCC1* expression were about two-fold greater in high-grade tumors samples. Of particular note, *POLB* was overexpressed (greater than three-fold) in high-grade tumors. The overexpression of the DNA polymerase beta can lead to an increased mutation rate because of its very low replicative fidelity. In contrast, *POLK* was found to be underexpressed in high-grade tumors compared with low-grade tumors samples. DNA polymerase kappa has an important role in translesion synthesis and its replicative fidelity may be accurate according to the substrate.
Conclusions: Bladder cells become susceptible to many lesions that, if not repaired correctly, could lead to bladder cancer. DNA repair mechanisms are essential to keep genetic stability. We compared low- and high-grade bladder tumors samples and we found differences in the profile of expression for human DNA repair genes. This differential expression may differentially contribute to the stability or progression of bladder tumors.

7177 POSTER

Weekly paclitaxel and paraplatin as first line treatment in patients with recurrent or metastatic bladder carcinoma

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Background: Paclitaxel is one of the most active drugs in several solid tumors as breast, lung, ovary, and bladder. Weekly paclitaxel seems less toxic and more efficient compared with paclitaxel every three weeks (possibly because of the proapoptotic and antiangiogenic activity), the dose intensity is quiet higher with less toxicity. The purpose of this study is to evaluate the efficacy of weekly paclitaxel and paraplatin as a first line treatment in patients with recurrent or metastatic bladder cancer.
Patients and Methods: Thirty patients with recurrent or metastatic bladder carcinoma were enrolled; between April 2002 to August 2004. All patients had measurable disease, ECOG PS 0−2, adequate renal, liver, and bone marrow functions. Patients received no prior chemotherapy for recurrence or metastasis. Patients were treated with 6−8 cycles of weekly paclitaxel 90 mg/m^2 (one hour IV infusion) and paraplatin AUC 2 (IV infusion over half an hour) for three weeks followed by one week rest, response was assessed every 2 cycles, patients showed an objective response (CR, PR or SD) had continued to 8 cycles.
Results: All patients were evaluable for response, toxicity, and survival. The median age was 52 years (range 48−65), Male/Female 22/8. Twenty patients were transitional cell carcinoma and ten patients were squamous cell carcinoma. The main location of disease was local recurrence in 7 patients (23.3%), liver metastasis in 8 patients (26.7%), lung metastasis in 6 patients (20%), bone metastasis in 4 patients (13.3%), and nodes in 9 patients (30%). A total of 227 cycles were administered with a median of seven cycles per patient, with no dose reduction. The overall response rate was 66.7% (CR 20%, PR 46.7%), 6 patients had stable disease (20%) and 4 patients had PD. Median time to progression and median survival were 10.1±1.2 months and 14.5±1.1 months respectively.
Conclusion: Weekly paclitaxel and paraplatin is an active, feasible, and well tolerated regimen as first line chemotherapy for patients with recurrent or metastatic cancer bladder with overall response rate 66.7%.

7178 POSTER

Clinical effectiveness of neoadjuvant chemotherapy for invasive bladder cancer

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Background: Neoadjuvant chemotherapy (CT) improves survival in patients (pts) with invasive bladder cancer. Our purpose was to assess the

clinical effectiveness of neoadjuvant CT in a portuguese comprehensive cancer centre.
Material and Methods: We retrospectively evaluated pts with urothelial carcinoma of the bladder treated with neoadjuvant CT between January 1996 and December 2005 at Instituto Português de Oncologia do Porto. The study excluded pts with T1 tumours. Descriptive analysis of clinical, pathological and treatment characteristics was performed. Study endpoints were overall survival (OS), disease free survival (DFS) and clinical response. Kaplan-Meier method was used to estimate survival outcome and differences were compared with the Log Rank test.
Results: Seventy two pts were identified, 81% male, with a median age of 69 years (range 41−80). All pts presented with ECOG performance status (PS) 0−1. Disease extension at diagnosis was: T2N0/X in 46%, T3N0/X in 37%, T4N0/X in 5% and anyTN1−3 in 12%. Histological grade 3−4 was found in 76% tumours. Twenty seven pts (38%) received cisplatin-methotrexate, 26 pts (36%) M-VAC (methotrexate-vinblastine-doxorubicin-cisplatin) and 19 pts (26%) platinum-gemcitabine. Objective clinical response before local treatment was 25% (18% complete responses and 17% partial responses). Twenty one pts (29%) had stable disease and disease progression was observed in 8 pts (11%). No significant differences in clinical response were found between CT regimes. Radical or partial cystectomy was the local treatment of choice in 44 pts (61%) and radical radiotherapy in 11 pts (15%). With a median follow-up of 28 months, 60% pts had disease recurrence or progression and 55% died of bladder cancer. Median DFS was 24 months (95% CI 11.7−36.3) and median OS was 29 months (95% CI 14.7−43.3) with estimated 5-year survival of 39%. ECOG PS 1 was associated with worse OS (p = 0.003). Pts treated with M-VAC had longer OS and DFS although not statistically significant. The choice of local treatment had no impact on survival.
Conclusions: Neoadjuvant platinum-based CT for muscle invasive urothelial carcinoma of the bladder is feasible in the clinic. Our results are consistent with those of the largest meta-analysis published to date.

7179 POSTER

Extragonadal germ cell tumours – results from a single centre

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Background: Primary extragonadal germ cell tumours (EGTs) are an uncommon malignancy accounting for 2−4% of all germ cell neoplasms in adult males. Their prognosis is worse than that for testicular germ cell tumours because of their relative chemoresistance and frequent presentation with widely disseminated metastases.
Patients and Methods: We identified 20 male patients (pts) with unequivocal diagnosis of mediastinal or retroperitoneal EGT who were treated at the Thomayer University Hospital between 1994 and 2008. The median age was 37 years (range: 19−52 years). Information on baseline characteristics, treatments, and outcome were obtained retrospectively from medical records. Radical surgical removal of the tumour was initially attempted in 4/20 patients, and was unsuccessful in all cases. All 20 pts received first-line platinum-based chemotherapy – 19/20 with bleomycin/etoposide/cisplatin (BEP) and 1/20 with cisplatin/vinblastin/etoposide (PVB). Four of 20 pts received additional chemotherapy regimens(s) as a part of the first-line treatment. Fifteen of 20 patients were treated with second-line chemotherapy including 4/20 pts who received high-dose chemotherapy.
Results: Only 2/20 pts (10%) achieved complete response (CR) after the first-line chemotherapy. Five of 20 pts (25%) had marker (M)-negative partial response (PR), 11 pts (55%) M-positive PR, and 2 pts died of disease progression during the first-line chemotherapy. Median overall survival (OS) of our pts is 24.8 months (4.5−98.1 months), with 6/20 (30%) patients surviving long-term, all off-treatment and disease-free. Of the analysed variables (age, constitutional symptoms, mediastinal versus retroperitoneal primary, seminoma versus nonseminoma, LDH elevation, S stage, metastatic site) only histology of seminoma was associated with favourable prognosis (p = 0.036). Significantly longer OS was achieved by patients who had negative positron emission tomography (PET) findings (median OS 50.7 versus 18.5 months, p = 0.004) and who had tumour marker normalisation (median OS 36.0 versus 13.3 months, p = 0.005) after therapy.
Conclusions: Widespread metastatic disease is commonly present in EGT patients at diagnosis. Complete responses are seldom achieved by first-line chemotherapy but long-term survival is achievable after combined-modality treatment. Negative PET findings after chemotherapy predict better OS although relapses did occur even after a negative PET study.

7180 POSTER

Six cases of testicular cancer associated with sarcoidosis: a clinical challenge

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Background: Mediastinal lymph nodes or intrapulmonary lesions are common findings in patients (pts) with metastatic testicular cancer and in pts with sarcoidosis. Under rare circumstances both diseases are diagnosed in the same pt, which can lead to diagnostic uncertainties, inadequate staging or even overtreatment of pts.
Material and Methods: We reviewed a retrospective cohort of 6 patients with both testicular cancer and sarcoidosis to assess the diagnostic and therapeutic challenges of this rare combination.
Results: The median age at diagnosis of germ cell tumour was 28 yrs (range 27−38). All pts had gonadal primaries, including 3 seminomas and 3 non-seminomas. All pts underwent inguinal orchiectomy, staging with CT chest/abdomen and assessment of AFP, βHCG and LDH; two had increased markers at baseline. The initial stage of disease according to the AJCC classification was IA (2), IIA (2), IIC (1) and IIIC (1). 4 pts received cisplatin-based chemotherapy (BEP, EP, VIP) and one single-agent carboplatin. Two pts had mediastinal adenopathy at the initial diagnosis, four developed nodeal disease during follow-up. Due to diagnostic uncertainties all underwent a mediastinoscopy or biopsy after a median interval of 8 months (range 4−20) from the diagnosis of testicular cancer. All pts had noncaseating sarcoid-like granulomas. The diagnosis of systemic sarcoidosis was confirmed in 3 pts by other investigations (BAL lymphocytosis and ophthalmologic evaluations). Only one pt required specific corticosteroid therapy. All others had spontaneous regression of sarcoidosis after a median of 10 months (range 4−20). Two pts were potentially overtreated for their testicular cancer (one with chemotherapy and one had a wedge resection of the lung with mediastinal, hilar and intrapulmonary lymphadenectomy) due to the finding of mediastinal adenopathy. All patients are alive without evidence of active cancer or sarcoidosis after a median interval since diagnosis of testicular cancer of 44 months (range 15−79) and 26 months (range 8−69) after diagnosis of sarcoidosis.
Conclusions: Sarcoidosis and testicular cancer can occur in the same pt, without a known pathophysiological relationship, either in a simultaneous or metachronous fashion. Mediastinal adenopathy can be found in both entities and mediastinoscopy is useful to clarify the differential diagnosis. Not all mediastinal masses in patients with testicular cancer are germ cell tumour metastasis and sarcoidosis or sarcoid-like reactions should be part of the differential diagnosis.

7181 POSTER

Socioeconomic profile of patients with stage I testicular seminoma

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Background: The significant increase in testicular cancer over the last few decades calls for an investigation of the influence of socioeconomic status on its aetiology. The aim of this study was to establish living conditions, family cancer history, education, and social behaviour in stage I testicular seminoma patients (TSPs).
Material and Methods: This hospital-based study included 100 TSPs diagnosed between 2003 and 2009 and 300 healthy men matched by age. Using a detailed questionnaire, the subjects were interviewed about the family history of cancer, occupational and living environment, diet, and drug intake. One-way ANOVA was used for statistical analysis of results.
Results: TSPs belonged to middle or low-income groups (84%). Alcohol, smoking, and vegetable intake did not significantly differ between controls and TSPs (OR = 0.95, CI 0.51−1.77; OR = 0.3, CI 0.22−0.56; OR = 1.02, CI 0.55−1.8). TSPs had significantly more ex-smokers than controls (p < 0.05). Half the TSPs were occupationally exposed to exhaust fumes, paint thinners, and heavy metals. TSPs showed a significantly higher intake of read meat (OR = 2.25, CI 1.2−4.2), use of pesticides (OR = 6.19, CI 2.4−15.7), and family history of cancer (OR = 4.4, CI 2.37−8.23) than controls.
Conclusion: Occupational exposure to exhaust fumes, paint thinners, and heavy metals, family cancer history, use of pesticides at home, and read meat intake correlate with testicular cancer. Socioeconomic status and its multidimensional nature are associated with the incidence of the diseases due to specific physical, biological and chemical stressors.