difference in short axis of the measured nodes between the two imaging techniques was <2 mm in all cases.
Conclusion: The quality of low dose CT images is adequate for retroperitoneal nodal surveillance in stage I testicular germ cell tumours and allows a reduction in cumulative radiation exposure. This technique may be safely adopted in surveillance schedules.

7109 POSTER DISCUSSION

An Individualized Dose/Schedule Strategy for Sunitinib in Metastatic Renal Cell Cancer (mRCC) May Improve Progression Free Survival (PFS) − Correlation With Dynamic Microbubble Ultrasound (DCE-US) Data

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Background: Sunitinib area under the curve (AUC) correlates with response and PFS (Houk et al). Current recommendations for dose modification do not take this into account.
Material and Methods: A single center retrospective review identified mRCC patients (pts) where individualized (individ) sunitinib dose/schedule modifications (DSM) were used to maximize dose and minimize time off therapy (Rx). Pts were started on 50 mg 28 days (d) on/14d off. DSM were done to keep toxicity (fatigue, skin, GI) at $\leqslant$ grade-2. DSM-1 was 50 mg 14d/7d with individ increases in d on Rx based on toxicity. DSM-2 was 50 mg 7d/7d with individ increases in d on Rx. DSM-3 was 37.5 mg continuously with individ 7d breaks. DSM-4 was 25 mg continuously with individ 7d breaks.
Results: In 172 pts; median age was 60 y; 20% good, 60% intermediate, 20% poor prognosis by Heng criteria; 80% had nephrectomy; 79% clear cell histology; 60% were previously untreated. At a median follow-up of 12.9 months (mo), overall median PFS was 8.9 mo. All 20 pts still on therapy are on a DSM Rx. Pts were allocated to three groups based on the dose/schedule used for the longest time. The PFS/response% (PR+SD) for each group was 4.9 mo/64.1% (standard 50 mg 28d/14d; 39 pts), 10.4 mo/77.5% (DSM-1/DSM-2; 71pts) and 11.9 mo/82.3% (DSM-3/DSM-4; 62 pts) with improved PFS (p = 0.0002) in both DSM groups vs. the standard schedule but no difference in response. In 20 responding pts studied by DCE-US at baseline, and after 7d and 14d on Rx or after 14d and 28d on Rx, tumour blood volume decreased at d7 and again at d14 vs. baseline but was stable or increased at d28 vs. d14. A rebound was seen after 14d off Rx.
Conclusions: Based on the US data, previous pharmacokinetic data (steady state at 10−14d) and this clinical data, starting pts on 50 mg 14d/7d followed by individ DSM may be safe and active. This DSM strategy was associated with a favorable toxicity profile, apparent improvement in PFS and a good PR+SD rate in a group of unselected mRCC pts, warranting confirmation in a prospective trial. Pts that tolerate 50 mg 28d/14d with minimum toxicity may need dose escalation and/or less time off therapy to optimize PFS.

7110 POSTER DISCUSSION

A Phase II Trial of Docetaxel, Cisplatin, 5-Fluorouracil (TPF) in Locally Advanced and Metastatic Carcinoma of the Penis (CRUK/09/001)

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Background: Chemotherapy for penis cancer is used mainly as palliation of metastatic disease. It also has a role in treatment for locally-advanced disease but the rarity of the disease has hampered attempts to define an evidence base for this. The combination of cisplatin (P) and 5-fluorouracil (F) has been used for treatment of squamous cell carcinoma (SCC) of the penis since 1990. Pathological similarities to head and neck SCC suggest that the addition of docetaxel (T) to an established platinum-based regimen may enhance therapeutic benefits.
Materials and Methods: A single-stage, single-arm academically-sponsored phase II trial was conducted. Eligible patients (pts) had histologically proven SCC of the penis staged as M1; or T4, any N, M0; or any T, N3/inoperable N2, M0; or any T, N1, M0 where chemotherapy was offered as first-line therapy after MDT discussion. All pts had measurable disease. Treatment consisted of three 21-day cycles of: T 75 mg/m^2 day 1, P 60 mg/m^2 day 1, F 750 mg/m^2/day (days 1−5). The recruitment target was 26 evaluable pts. Fourteen or more responses were required to conclude a response rate of 60% or more (p0=0.35, p1=0.60, α=0.1, β=0.2; Fleming-A'Hern exact methods). The primary endpoint was overall response rate at completion/discontinuation of trial treatment. Secondary endpoints included safety, tolerability, progression-free and overall survival.
Results: 29 pts were recruited from 9 UK centres between September 2009 and December 2010. Median age was 61 years; 19 pts had performance status (PS) 0, 10 PS1, 1 PS2. Three pts discontinued treatment early for reasons other than progression. Dose reductions or delays were reported for 13 pts. With a median follow-up of 7 months, 19 pts remain in follow-up and 10 pts have died. Toxicity data are available for 28 patients: 19 (68%) experienced toxicity at grade 3/4, with neutropenia most common (n = 13, 46%). 8 pts (29%) experienced febrile neutropenia and/or sepsis.
Central independent review of response will be completed in April 2011. Full analysis of the primary endpoint, overall response rate, will be presented.
Conclusions: UK clinicians successfully recruited to a multi-centre trial in penis cancer. A network of centres has been established for future studies. Toxic effects of TPF were common but within acceptable limits. Response data are awaited.

7111 POSTER DISCUSSION

High-dose Chemotherapy With Autologous Stem-cell Support in Patients With Metastatic Non-seminomatous Testicular Cancer − a Report From the Swedish Norwegian Testicular Cancer Group (SWENOTECA)

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Background: Within the SWENOTECA IV study on patients with metastatic non-seminomatous testicular cancer, 55 men were treated with high-dose chemotherapy (HDCT) in three clinical situations: A) insufficient response to standard-dose intensified chemotherapy (BEP with addition of iphosphamide), B) histologically vital cancer at surgery following intensified chemotherapy, C) relapse after intensified chemotherapy. In situation A and C two HDCT cycles and in situation B one HDCT cycle was recommended. This study presents survival and toxicity data for these patients.
Material and Methods: From 1995 to 2007 situation A was the reason for HDCT in 36 patients, B in 7 patients and C in 12 patients. The first HDCT cycle consisted of carboplatin 28x(GFR+25) mg, cyclophosphamide 6000 mg/m^2 and etoposide 1750 mg/m^2, all divided in four daily doses. For the second cycle etoposide was replaced by tiotepa 480 mg/m^2.
Results: In total 33 men (59%) received two high-dose cycles, of whom 27/36 (75%) in situation A and 4/12 (33%) in situation C received two cycles. The main reasons for only one HDCT cycle was serious toxicity (n = 7, 32%), according to protocol (n = 5, 23%), and progressive disease (n = 4, 18%). After a median follow-up of 7.5 years, overall survival in situation A, B and C were 72%, 100% and 58%, respectively, whereas failure-free survival was 64%, 71% and 42%, respectively. In Cox regression analysis stratified for treatment indication, increasing age (HR 1.09, 95% CI 1.03–1.15) and being marker positive prior to HDCT (HR 2.47, 95% CI 1.20–5.11) was associated with increased risks for death due to any cause, while having received only one HDCT cycle (HR 2.84, 95% CI 0.83–9.77) tended to be associated. Three patients (5.5%) died during HDCT of renal failure or intracerebral hemorrhage, all treated before 2000. Nephrotoxicity was the most common non-hematological grade 4 toxicity, affecting 5 (9%). The time interval between cycle one and cycle two was median 55 days (range 30−84). Hematological toxicity was not more pronounced during the second vs. the first HDCT cycle. The hospitalization

was median 23 days (range 12−54) for both cycles. The recovery time was median 10 days for neutrophils and 11 days for platelets in both cycles.
Conclusions: The SWENOTECA IV HDCT strategy resulted in a favorable outcome within a population-based cancer care program. Furthermore, toxicity and hospitalization did not differ between the first and the second HDCT cycle.

7112 POSTER DISCUSSION

Early Diagnosis of Androgen Deprivation Syndrome in Testicular Cancer Survivors − an Audit of 1155 Patients in the West Midlands

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Background: Testicular cancer (TC) is a curable malignancy in the majority of the patients. A minority of TC survivors develop androgen deprivation syndrome (ADS) with vague symptoms that are not always appreciated. This study refers to TC survivors in the West Midlands, who were diagnosed with ADS and started with androgen replacement treatment (ART) at the University Hospital Queen Elizabeth Cancer Centre.
Materials and Method: The details of patients started on ART during the last 11 years were retrieved from the disease specific data-base and cross-matched with the hospital records. For each patient, we recorded the following: Demographics, age at diagnosis, single or bilateral orchidectomy, site and stage at presentation, histology, treatment details, relapse, Testosterone/FSH/LH assessment, date of first reported symptom, type of symptoms, time interval since diagnosis, time Interval between 1st symptom and 1st prescription of ART, age at 1st prescription, type and efficacy of ART.
Results: A total of 88/1155 (7.61%) patients with history of TC were started on ART during the last 11 years at the QE cancer Centre. The majority of patients (82/88) were diagnosed with ADS since 2006 as the level of clinical suspicion and vigilance increased. The median age of patients who were offered ART was 39 yrs (min 17, max 74). Patients with bilateral orchidectomy (BO:40/88) were started at the time of 2nd surgery before they developed symptoms. Patients with single orchidectomy (SO:48/88) reported at least 1 of the following prior to ART: lethargy 43/48, loss of libido 33/48, shaving pattern change 20/48, other: weight gain 4/48, mood change/depression 3/48, and headaches 3/48. The median level of Testosterone before ART was 8 nmol/L (range 0.5−23 nmol/L). The majority of patients had elevated LH/FSH prior to developing symptoms. The majority of patients (38/48, 79.1%) had clinical benefit from ART. None of the patients has been diagnosed with prostate cancer so far.
Conclusion: ADS is an under diagnosed entity which may occur to relatively young patients with history of TC within the first 5 years of follow up. ART is generally successful and improves symptoms in the majority of patients.

Histology		
Total	88	
Pure seminoma	57	
NSGCT	22	
Combined	6	
Leydig	3	
Bilateral orchidectomy or atrophic/non existent testis, 40/88	started ART with 2nd surgery	
Single Orchidectomy (SO), 48/88		
Treatment post SO	Carboplatin AUC7	20
	Surveillance	3
	Other (BEP,TIP,EP)	28
From TC diagnosis to 1st symptom	14.96 mo	
From symptom to 1st T level	1.32 mo	
From TC diagnosis to ART	16.67 mo	
Clinical benefit with ART (SO)	Improved	38
	Lost to FU	2
	No benefit	2
	Stopped	2
	Unsure	4

7113 POSTER DISCUSSION

FGF-mechanism of Resistance to VEGF Receptor Antagonists

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Background: The growth of new blood vessels is regulated at multiple steps by interactions between several pro- and antiangiogenic factors. We believe that the angiogenesis induced by basic fibroblast growth factor (bFGF) is resistant to anti-VEGF/R (vascular endothelial growth factor/receptor) therapy.
Methods: The Corneal Micro Pocket Assay was performed. 70 female C57BL/6 mice (age at start day, 6 weeks) were randomized to 7 arms (10 mice in each group): 1) bFGF; 2) VEGF-A; 3) bFGF negative, VEGF-A negative; 4) bFGF and sunitinib; 5) VEGF-A and sunitinib; 6) bFGF and bevacizumab; 7) VEGF-A and bevacizumab. Doses of bFGF, VEGF-A (R&D Systems), sunitinib (Pfizer), and bevacizumab (Roche) were 200 ng, 400 ng, 10 mg/kg, 50 mg/kg per animal, respectively. Hydron pellets preparation, surgical procedure, and quantification of angiogenesis (angiogenic score) were performed as previously reported (Kenyon BM et al.). Statistical significance was determined by the Student's t test.
Results: There was no neovascularization in bFGF negative, VEGF-A negative group (mean, 0). The effect of 200 ng/pellet of bFGF (mean, 4.2; SEM, 0.05) was compared with that of 400 ng/pellet VEGF-A (mean, 4.08; SEM, 0.09), P = 0.7. In bFGF-induced angiogenesis, sunitinib (mean, 3.9; SEM, 0.1; P = 0.2) and bevacizumab (mean, 4.71; SEM, 0.33; P = 0.85) did not impact on neovascularization in comparison with bFGF positive control. The angiogenic effect of VEGF-A was significantly inhibited by both sunitinib (mean, 0.38; SEM, 0.06; P = 0.001) and bevacizumab (mean, 0.75; SEM, 0.05; P = 0.001) in comparison with VEGF-A positive control. No significant differences between 2 targeted agents in bFGF and VEGF-A models were obtained.
Conclusion: Our recent findings demonstrate that anti-VEGF(R) therapy significantly impacts on VEGF-A-induced angiogenesis and not on bFGF-induced neovascularization. Further studies are needed to assess the role of FGF-pathway in resistance to VEGF(R) therapy.

7114 POSTER DISCUSSION

Appropriateness of Treatment Options for the Management of Patients With Advanced Renal Cell Carcinoma (RCC) Using the Validated Semi Quantitative RAND Corporation/University of California, Los Angeles (RAND/UCLA) Methodology

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Background: Targeted therapies have radically improved the outlook for patients with advanced RCC. A number of factors contribute to treatment choice such as prior treatment and prognostic risk assessment (e.g. MSKCC risk criteria). In order to combine up-to-date clinical evidence with the experience of experts in the field, we have undertaken an update of prior work to include newer treatments and evidence, and add a European perspective.
Methods: The RAND/UCLA method was employed using a panel of 11 EU experts. Cases and treatments were grouped according to clinical patient scenarios. Individual panel members scored the appropriateness and their preferences of several interventions for each case and treatment, 1 (inappropriate) to 9 (most appropriate). This was followed by a panel meeting to reconcile disagreements as per the RAND methodology.
Results: There was excellent concordance among the panel for the appropriateness/inappropriateness of therapies for the majority of different clinical scenarios considered with only 4.2% disagreement. There were however a number of areas where the preferences or opinions of panel members varied ("disagreement"). Two such examples were

- Use of sunitinib or pazopanib in two instances, patients with locally advanced tumour and those with metastatic disease and the primary tumour in-situ, with good surgical risk and no prior systemic therapy but with high risk features (MSKCC criteria)
- Use of temsirolimus in papillary and oncocytic carcinoma