Further investigation is needed to establish socioeconomic strata at a higher risk of testicular cancer and introduce proper preventive measures.

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Risk factors for bleomycin induced pulmonary toxicity in germ cell tumor patients

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Background: Bleomycin is one of the main drugs used as induction chemotherapy in germ cell tumor patients. Pulmonary toxicity is a fatal side effect of this drug. The aim of this study was to evaluate the risk factors for bleomycin induced pulmonary toxicity (BPT) in germ cell tumor patients.
Material and Methods: We retrospectively reviewed the medical records of 83 male germ cell tumor patients admitted at our hospital from March 2006 to September 2008. All patients were treated with bleomycin, etoposide and cisplatin chemotherapy with three doses of 30,000 IU of bleomycin per cycle for two to four cycles. All cases of lung toxicity ranging from fibrosis changes, consistent with BPT, noted on chest X ray or thoracic computed tomography scan, to dyspnea requiring treatment with steroids were identified. Risk factors predicting BPT were analyzed using P value generated from univariate and multivariate logistic regression analysis, 95% confidence intervals (CI) were also calculated. P value of less than 0.05 was considered statistically significant.
Results: The mean age of study population was 31 years (range 18−50 years). Fifty eight (69.9%) patients had non seminoma. Forty six (55.4%) patients were stage III and 7 (8.4%) patients had primary extragonadal germ cell tumors. Mean cumulative bleomycin dose was 273,000 IU. Fifteen (18.1%) patients developed BPT. In univariate analysis of BPT, glomerular filtration rate (GFR) <80 ml/min before chemotherapy ($p = 0.01$; 95% CI 1.36−14.23), age >40 years at time of bleomycin administration ($p = 0.03$; 95% CI 0.06−0.86), granulocyte colony stimulating factor (GCSF) use with chemotherapy ($p = 0.01$; 95% CI 1.35−21.39), presence of lung metastasis at presentation ($p = 0.004$; 95% CI 1.88−28.55) and primary extragonadal germ cell tumors ($p = 0.01$;95% CI 1.54−40.1) were significantly associated with an increased risk of bleomycin induced lung toxicity. On multivariate analysis, GCSF use with chemotherapy ($p = 0.01$;95% CI 1.83−178.6), presence of lung metastasis at presentation ($p = 0.006$;95% CI 2.11−91.42) and primary extragonadal germ cell tumors ($p = 0.01$;95% CI 2.16−722.4) were identified as independent risk factors for bleomycin induced pulmonary toxicity.
Conclusion: Primary extragonadal germ cell tumors, lung metastasis at presentation and GCSF use with chemotherapy are independent risk factors for BPT.

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Outcomes in metastatic (met) germ cell tumours (GCT): 5-year experience from a single institution

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Background: Adherence to international guidelines is important in treating met GCT. We followed the European Consensus guidelines (Ann Oncol 2004) for most patients (pats) since their publication. Poor-risk pats or those with an incomplete response (IR) to chemotherapy (chemo) were discussed with the RMH[3]. This is the first report from Cyprus, on a series of consecutive pats treated with first-line chemo over the last 5 years (yrs).
Methods: All pats had met GCT. Standard BEP (Bleomycin, Etoposide, Cisplatin) chemo was given over 3 or 5 days (d). Good-risk pats received 3d BEP×3, intermediate/poor-risk pats 5d BEP×4. Where B was contra-indicated we used EP×4. From 12/2005 we adopted CBOP/BEP (C, carboplatin; O, vincristine) for pats with bulky poor-risk disease. All retroperitoneal lymph node dissections were carried out in the UK. Post-chemo follow-up (FU) was every 2/3/6 months in yrs 1/2−3/4−5 respectively.
Results: We treated 37 pats from 1/2004−4/2009. Their characteristics were: median age 30 (range 17−57); primary, testis n = 36, mediastinum n = 2; non-seminoma n = 30, seminoma n = 8 (bilateral testis primaries 1 patient); hCG, AFP, LDH raised in n = 18/21/24 respectively; Median values (range) were 71 (6−249,000), 81 (8−35,350), 1.6x upper limit of normal (1.0−6.9). IGCCCG prognostic groups: Good n = 24 (65%), intermediate (interm) n = 7 (19%), poor n = 6 (16%). Median chemo cycles 3 (range 2−11, total 166). Post-chemo surgery was performed in 7 pats (10 resections). After a median FU of 25.8 months (range 0.5−59.3) only 2 pats died of GCT. 3-year OS was 92% (all pats), 100% (good-risk) and 79% (interm/poor-risk). The overall 3-year failure-free survival (FFS) in 34 evaluable pats was 87% (65% in interm/poor-risk). The table below summarizes response outcomes and survival status.

Response	n = 37	%
CR	27	73
CR chemo	22	
chemo+Sx	4	
chemo+RT	1	
IR	7	19
Not evaluable	3*	8
Survival	n = 37	%
Alive+Disease-free	24	65
Alive with disease	7*	19
Status unknown	4	11
Died of GCT	2	5

*treatment ongoing in 3.

Conclusion: The 3-year OS of 92% illustrates how use of international guidelines can lead to satisfactory outcomes in small isolated treatment centres.

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Docetaxel activity in second line treatment for urothelial carcinoma: a retrospective analysis

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Background: There is not standard treatment for urothelial carcinoma after relapse or progression to first line treatment with platinum based chemotherapy. Docetaxel has emerged as an option in second line for patients with an optimal performance status based on its activity as single agent or in combination with platinum in first line treatment. In this setting, it has been reported a response rates of 31−60%. Very few trials has studied its activity as single agent after progression to standard chemotherapy regimen. To asses the activity of docetaxel in urothelial carcinoma as single agent in second line treatment we retrospectively review the patients treated in our hospital.
Patients and Methods: We retrospectively review our patients with advanced or metastatic urothelial carcinoma of the bladder or of the superior urinary tract who were treated with docetaxel in second line. Variables analysed were: Age, Sex, ECOG performance status (PS), site of primary (bladder vs. superior urinary tract), number of metastatic sites, docetaxel dose, number of cycles, response by RECIST criteria, time to progression (TTP) and survival (OS).
Results: Between April of 2005 and October of 2008 27 patients were treated with docetaxel as second line treatment. In 4 cases we were unable to collected completed data, so those patients were excluded for the present analyses. Of the 23 patients analysed, median age was 73 (range 59−85), 19 were male and 4 female, all of then had a PS of 0−2, primary tumour was located in the bladder in 20 cases, in the urether in 2 and in renal pelvis in 1 case. Median number of metastatic sites were two. Docetaxel was administred at 100 mg/m^2/21d but in two cases radiotherapy was administred concurrently and docetaxel dose was changed to 40 mg/m^2/7d during radiotherapy treatment. Median number of cycles administered were 3 (range 1−4). Response rate could be evaluated in 16 cases and no complete or partial response was observed. Stable disease was reported in 3 patients and progressive diseases in the other patients. Seven patients were not evaluable because of rapid clinical deterioration, probably related to progressive disease. Median time to progression was 55 days and median OS was 74 days.
Conclusions: In this retrospective analysis docetaxel has demonstrated little activity in this subset of patients. There is an emergent need to identify new drugs for patients who have progressed to platinum-based chemotherapy.

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Neoadjuvant chemotherapy for invasive bladder cancer – single centre study on tolerance and response

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Background: The 5% improvement in absolute overall survival (OS) at 5 years that has been shown with neoadjuvant chemotherapy in muscle