Table 1

Factor	ASTRO p value	LPA+2 p value
PSA	< 0.0001	< 0.0001
T Stage	0.0002	0.0003
Gleason	< 0.0001	< 0.0001
Radiation dose <>66 Gy	0.0066	0.001
PPC	< 0.0001	0.0001
Neoadjuvant – ADT	0.047	0.0011
Adjuvant – ADT	< 0.0001	< 0.0001

851 POSTER

Duration of toxicity following permanent I125 prostate brachytherapy

G. Perry, V. Gallant, C. E, C. Morash. *The Ottawa Hospital Regional Cancer Centre, Radiation Oncology, Ottawa, Ontario, Canada*

Background: Convenience and a favourable toxicity profile have made prostate brachytherapy increasingly popular in the treatment of low risk prostate cancer (PC). However, toxicity may not be as low as initially thought with the current techniques. This study looks at the time course of the common toxicities following permanent I125 prostate brachytherapy.
Methods: 249 patients (pts.) with low risk PC treated between October 1998 and October 2004 are currently being followed post implant. The prescribed dose was 145 Gy MPD. A urethral sparing technique was used which aimed at keeping the urethral dose to less than 150% of the prescribed dose. Implants were done using preloaded needles with either loose or linked seeds. At each visit pts were questioned about sexual function, and genitourinary and gastrointestinal symptoms. Post-implant dosimetry was performed 1 month following the implant. Follow up occurred every 3 months in the first year, every 4 months in the second year, and every 6 months thereafter.
Results: Of the 249 pts., 3 pts. were lost to follow-up, and 1 had not returned for his 1 month post-implant dosimetry follow-up visit. The remaining 245 men had a median age of 67 years (range: 47–84 years) and a median follow-up of 24.1 months (range: 3.5 – 57.7 months). Forty percent received adjuvant hormones treatment. The toxicity profile is as follows:

GI pts.			GU pts.	
Grade	Acute	Late	Acute	Late
1	16	28	27	123
2	3	10	17	59
3	0	0	7	16

Ninety-one percent experienced some deterioration in urinary function and 27% experienced some rectal toxicity. Diarrhea and bloody discharge, and frequency, nocturia and dysuria were the most commonly reported rectal and bladder toxicity, respectively. The average duration of acute and late grade 1/2 rectal toxicities was 2.9/2.5 and 7.1/7.7 months, respectively. The average duration of acute and late grade 1/2/3 urinary toxicities was 3.0/2.8/2.3 and 14.5/11.0/11.5 months, respectively. Ninety-six men were known to have normal sexual functioning prior to implant, 53 developed some level of erectile dysfunction, and 29 became impotent, 15 post hormones. The median time from treatment to impotency was 6 months. Ten pts. regained functioning (5 with Viagra), with a median duration of impotency of 12.6 months. Positive correlations were found between the D90 (P = 0.005) and V100 (P = 0.004), and urinary symptom severity. No other relationships between severity and dosimetric values were noted.
Discussion: Brachytherapy was tolerated well, with low to moderate urinary, bowel and sexual toxicity in most pts lasting between 3 and 15 months. Elevated dosimetry values appear to be an indication of higher severity grade for urinary toxicity but not rectal toxicity. While almost all symptoms eventually resolved, the duration was longer than expected.

852 POSTER

Risk adapted management in clinical stage a (CS-A) nonseminomatous testicular tumors (NSTT): a critical appraisal

D. Argirovic. *Clinic of Urology, CCS, Division of Urologic Chemotherapy, Belgrade, Serbia*

Background: We previously reported that the patients (pts.) in CS-A NSTT who underwent retroperitoneal lymphadenectomy (RPLA) are more likely to relapse if their preorchiectomy AFP was >80 ng/ml, if they have >80% embryonal carcinoma or if there was microvascular tumor invasion (ISW 165:555, 1995). The aim of the present study is analysis of experience with surveillance in comparison to primary RPLA and cisplatin (CDDP)-based chemotherapy (CHT) according to risk factors in CS-A NSTT with normal values of serum tumor markers (STM) postorchiectomy.
Material and methods: 195 pts. entered a prospective but nonrandomized study, from 01.81–12.03. The pts. are divided into 3 groups according to primary risk adapted treatment. Arm A (n = 60) – surveillance. Arm B (n = 65) – "nerve sparing" RPLA with 2 cycles of adjunctive CDDP-based CHT in PS-B1/B2. Arm C (n = 70) – only 2 cycles of CDDP-based CHT in high risk (HR) group of pts. (as defined above).
Results: Arm A – 9/21 pts (42.9%) with HR relapsed (4 RPLN, 2 RPLN+lung, 1 inguinal LN+lung, 2 only elevated STM) within median free interval (MFI) of 12.3 months (M)(range 3–46) with CR following applied therapy in 6 pts (66.6%)(8 pts. necessitate surgery). Alive and free of disease (AFD) are 18 pts. (85.7%) at median follow-up (MFU) of 12.3 years (range 3.5–20.6). 6/39 pts. (15.4%) with low risk (LR) (without previously mentioned criteria) relapsed within MFI of 6.8 M (range 3–10) (3 RPLN, 1 lung, 2 only elevated STM) with universal CR following applied CHT. All pts are AFD after MFU of 9 years (range 1.9–18.7) (p < 0.05). Arm B – Relapses following RPLA in HR PS-A occurred in 7/35 pts. (20%) within MFI of 8.3 M (range 2–23) (5 lung, 1 RPLN, 1 only elevated STM with CR following CHT± surgery in 4 pts. (57.1%). 11 pts. with LN metastasis had universal survival. Overall, relapses occurred in 9/46 pts. (19.2%) with survival in 41 pts. (91.1%) at MFU of 14.6 years (range 8.75–17.25). Among 19 pts. with LR, only 2 pts. (10.5%) had LN metastases, whereas relapse rate was null in 17 fully available pts after MFU of 10.8 years (range 8.6–15.8) (1 lost of FU at 26 M, 1 died of other malignancy at 90 M). 18/46 pts. (39%) I n HR received adjunctive CDDP-based CHT vs 1/19 (10.5%) in LR group of pts. (p < 0.05). Arm C – 1/70 pts. (1.4%) HR pts. treated with primary CHT relapsed at 12 M in the lung and died despite salvage CHT and surgery. AFD are 69 pts. (98.6%) at MFU of 5.5 years (range 1.5–13.7).
Conclusions: We conclude that the pts in CS-A NSTT are not necessarily helped by initial RPLA. According to the results of the present study optimum therapy for HR pts are 2 cycles of CDDP-based CHT. Surveillance policy is acceptable mode of treatment in strictly selected group of pts with LR.

853 POSTER

Early death from comorbid illnesses among curatively-treated prostate cancer patients

P.A. Groome[1], S.L. Rohland[1], M.D. Brundage[1], J.P.W. Heaton[2], W.J. Mackillop[1], D.R. Siemens[2], Z. Song[1]. [1]*Queen's Cancer Research Institute, Cancer Care and Epidemiology, Kingston, Ontario, Canada;* [2]*Queen's University, Urology, Kingston, Ontario, Canada*

There is a need to better identify those patients with prostate cancer who may not benefit from treatment because they will die of other causes before their cancer becomes symptomatic. We sought to identify which comorbid illnesses are the most important to consider when advising patients about treatment options.
We conducted a population-based case-cohort study of patients diagnosed and treated for cure with radiotherapy or prostatectomy in Ontario, Canada between 1990 and 1998. Cases consisted of a random sample of 587 patients who died within 10 years of a cause other than prostate cancer. The comparison cohort consisted of 1655 patients randomly selected from all treated patients in the Ontario Cancer Registry (OCR). Data were collected from medical charts at the treating hospital or cancer centre and supplemented from physician office charts as needed. The sampling frame and some key variables were obtained using the OCR linked to electronic clinic and census data. Analyses were stratified by treatment type: radiotherapy or surgery. In addition to investigating the role of separate comorbid illnesses, we calculated patient's total comorbidity burden using the Cumulative Illness Rating Scale (CIRS).
The most common causes of death were heart disease (36.6%) and respiratory disease (18.4%). Overall, the disease ultimately causing death was identified as a comorbid illness (at cancer diagnosis) in 51.1% of cases; this proportion was 92.6% for cases dying of respiratory disease and 37.2% for heart disease deaths. Across both treatment groups and after controlling for age, comorbid disease was statistically significantly associated with at least a 2-fold increase in the risk of death in those with: moderate to severe cardiac, severe hematopoietic, moderate to severe respiratory, severe lower GI, and moderate to severe liver disease. For both the radiotherapy and surgery groups, each increment on the CIRS scale (range 0–25) was associated with a 13% increase in the risk of dying after controlling for age.
We identified those illnesses known at prostate cancer diagnosis that will be most likely to lead to an early death among patients being curatively treated for prostate cancer. The results have important implications for