

Cox regression analyses showed that patients with CRP ≥ 1.5 mg/L had 2.21 (95% CI 1.04–4.70) times higher risk of developing non germ cell cancer and 2.79 (95% CI 1.22–6.34) times higher risk for CVD compared to patients with a CRP < 1.5 mg/L at FU-1. Radiotherapy was associated with 2.56 (95% CI 1.19–5.51) times higher risk for developing non-germ cell cancer in comparison to patients treated with surgery with or without chemotherapy.

Conclusion: In long-term TCSs CRP may serve as a potential marker of cardiovascular events and a second cancer.

[600] The association of biomarkers of insulin resistance and obesity to prostate tumour markers

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Prostate cancer incidence is expected to rise among developing nations secondary to increased prevalence of obesity and the elderly. Many case-control studies have been done associating obesity to increased prostate cancer risk; very few studies have been conducted correlating tumour markers of prostate cancer to biomarkers of obesity and insulin resistance using a homogenous cancer-free cohort. This study aims to fill this gap. A total of 219 consenting adult Arab men aged 30–70 years old were included in this cross-sectional study. Demographics were noted and anthropometrics measured. Fasting blood samples were extracted and measured glycemic and lipid profile using routine lab methods. Serum adipocytokines and inflammatory markers were measured using multiplex assays. Prostate tumour markers including tPSA, fPSA and PTHrP as well as endoglin were measured using enzyme linked immunosorbent assays. Among all subjects, age, triglycerides and waist-hip ratio were significantly and positively associated with circulating tPSA levels (p -values < 0.01). Systolic blood pressure, adiponectin, aPAI-1, TNF- α and IGF all had inverse significant associations to tPSA. Stepwise linear regression revealed that adiponectin, IGF, WHR and PTHrP predicted 30 % of variance in tPSA levels (p -value < 0.0001). In conclusion, the significant association of several biomarkers of insulin resistance and obesity, specifically adiponectin and waist-hip ratio strengthens the link between insulin resistance and visceral adiposity to prostate cancer development among Arab men.

[601] Association of regret with utilization of counseling about reproductive loss: a survey of reproductive-aged patients in California with leukemia

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Background: Rates of treatment-related-infertility in reproductive aged women with leukemia – and the possible effects of such infertility on post-treatment quality of life – are poorly understood. So, too, is the availability and utilization of fertility preservation counseling and treatment on a public health scale in the United States.

Material and Methods: We are conducting a retrospective cohort study using a written survey instrument. Women aged 18 to 40 at diagnosis of leukemia between 1993 and 2007 were identified in the California Cancer Registry – a collection of all cancer diagnoses in California, a state with a diverse population of 40 million.

The surveys are being sent out in 5 year segments: (1) Diagnosed between 2003–2007, (2) 1998–2002, (3) 1993–1997. The instrument contains questions about treatment history, menstrual history, family size, parenting desires, fertility counseling, decision-making about fertility preservation, and incidence of infertility. Patients are also asked to complete the following: (1) A Decision Regret Scale (DRS), (2) The Reproductive Concerns Scale, (3) WHOQOL-BREF, and (4) Satisfaction with cancer and fertility treatment scales. These scales have all been previously validated. Patients are being contacted by mail with the written survey and given a follow-up phone call. All surveys (N = 750) will have been sent by April, 2010.

Results: We report preliminary data on 37 returned surveys (sent to patients diagnosed from 2003–2007). Their average age at diagnosis was 30.5 years. 34 women underwent treatments with the potential to compromise fertility (i.e., systemic chemotherapy, or a radiation field that includes the abdomen/pelvis). 16 received Bone Marrow Transplant (BMT); see the tables.

Table 1: Rates of utilization of fertility preservation services

Counseled about risk of BMT to fertility by oncology team	94%
Counseled about the risk of non-BMT treatment to fertility by oncology team	28%
Desire (more) children	57%
Considered fertility preservation before cancer treatment	21%
Actually visited a fertility doctor before cancer treatment	5%
Had fertility preservation treatment before cancer treatment	5%

Table 2: Decision Regret Scale (DRS), as it relates to decision to have undergone (or not) fertility preservation treatment (5 Least Regret, 25 Most)^a

Desire children	Counseled by oncologist	
	Yes	No
Yes	13.5 [5 to 22]	18.5 [15 to 25]
No	10.3 [10 to 11]	11*

^a19 participants without children before diagnosis; overall DRS = 13.9 [5 to 25]

*Only one value in range.

Conclusions: Our preliminary data suggests decision regret scale scores may be lower if counseled regarding the potential for reproductive loss prior to treatment.

[602] Extracapsular extension of axillary lymph node metastases in HER-2 receptor positive and negative breast cancers: prognostic importance

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Background: Studies on the association of HER-2/neu with the axillary lymph node metastasis are controversial. Amplification of the protein product of the HER-2/neu oncogene in primary breast cancer specimens is associated with an adverse prognosis.

Methods: From January 2000 to December 2008, 504 breast cancer patients operated in General hospital "Sveti Vracevi" in Bijeljina. We selected 253 (50.2%) patients with breast cancer who had metastases to axillary lymph nodes.

Results: Extracapsular extension (ECM) was found in 103 (40.7%). The patients were identified and divided into two groups: patients in the HER-2 positive group (38 patients) and HER-2 negative group (65 patients). ECM was seen in 10 of 16 (62.5%) patients in the HER-2 positive group compared with 5 of 17 (29.4%) in the HER-2 negative group ($P = 0.059$). Total number of lymph nodes showing ECM were also significantly more in the HER-2 positive group (48 of 81, 59.25%) vs. (13 of 60, 21.66%) in the HER-2 negative group ($P < 0.001$). With a median follow-up of 96 months factors with independent prognostic value for disease-free survival by multivariate analysis included HER-2/neu overexpression with extracapsular extension ($P < 0.005$), pN category ($P < 0.01$), presence of lymphovascular invasion (LVI; $P < 0.005$), and ECM ($P < 0.001$). An independent negative prognostic effect on overall survival was observed for HER-2/neu overexpression with extracapsular extension ($P < 0.05$), pN category ($P < 0.05$), and presence of LVI ($P < 0.005$) and ECM ($P < 0.001$).

Conclusions: In patients whose tumours expressed HER-2/neu who had positive lymph nodes and extracapsular extension prognosis was significantly worse compared with those who were HER-2/neu negative and lymph node positive with extracapsular extension. These findings have led to the conclusion that HER-2/neu overexpression is associated with a more aggressive subtype of cancer.

[603] Long-term accumulation of platinum (Pt) and its impact on self-reported neuro- and ototoxicity in cisplatin-treated testicular cancer survivors (TCSs)

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Background: Platinum (Pt) induced neuro- and ototoxicity (NTX) are important, long-term complications of chemotherapy for TC. Although residual Pt can be measured in serum for many years after the completion of cisplatin-based chemotherapy, its impact on NTX has not been assessed.

Material and Methods: 165 testicular cancer survivors (TCSs) treated with Pt provided blood samples at survey I (1998–2002) and reported NTX during both survey I and II (2007–2008) 5–28 years after therapy. Symptom severity was self-reported by a four categorical scale.

Serum Pt concentrations were quantified using a Perkin Elmer DRC II Inductively Coupled Plasma-Mass Spectrometer. We assessed associations between applied cumulative Pt dose, residual Pt levels and NTX at survey I and II using ordinal logistic regression analyses.

Results: Both initial Pt dose and residual Pt concentration were associated with NTX (Table).