Clinical experience of patients referred to a Multidisciplinary Cardiac Oncology Clinic: An observational Study

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Background: Cardiotoxicity is now the second leading cause of long-term morbidity and mortality among cancer survivors. Cardio-oncology clinics (COC) have emerged across North America and globally, however there is a paucity of data on the demographics and clinical outcomes of patients (pts) seen in this setting.

Methods: All cancer pts (early and advanced stage) referred to the Ottawa Hospital COC were included in this retrospective observational study (ROS). Data collected: patient demographics, cancer type and stage, reason for referral, cardiac risk factors (CRF), cardiac assessments /treatment, and clinical outcomes (cancer treatment/completion rates, disease progression, death).

Results: 779 pts were referred to the COC between 10/2008 -10/2015. Median age of pts at time of cancer diagnosis 60 (range: 18 - 90); 516 females (66%) and 263 males (34%). Most common cancer: breast (n=408; 52%) then gastrointestinal (n=131; 17 %), genitourinary (n=90; 12 %), hematological (n=55; 7%); lung (n=40; 5 %) and other (n=55; 7 %). 493/779 (63%) patients had early stage (I-III), and 198/779 (25%) had metastatic disease. Reasons for referral: decreased left ventricular ejection fraction (32.0%), pre-chemotherapy assessment (9.9%), and arrhythmias (4.9%). Pts had a median of 2 CRFs: 350/779 (42%) smokers, 337/779 (41%) hypertension, 218/779 (26%) obese and 208/779 (25%) hypercholesterolemia. Almost half of pts (49%) were exposed to anthracyclines. 318/779 (41%) pts received cardiac medication (CM):181/318 (57%) multiple CMs, 57/318 (18%) - ACE inhibitor (AI); 45/318 (14%) – AI and beta-blocker (BB); 38/318 (12%) - BB. 129/163 (79%), of breast cancer pts receiving targeted based therapy completed their treatment. The majority (642, 83.7%) of pts were alive at the time of last data collection, and 134 (17.3%) pts were deceased. Additional cardiac and clinical outcomes will be presented.

Conclusions: This ROS is one of the largest to report on the characteristics and clinical outcomes of pts referred to a COC. Ongoing analysis of referral patterns, management plans and patient outcomes will help guide cardiac care of oncology pts and ultimately optimize cancer outcomes.