**CARDIOTOXICITY IN CANCER THERAPY**

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Cardiovascular disease and cancer will often coexist, due to the high prevalence of both diseases and the cardiotoxic effects of some of the cancer treatment. Currently, there are 12 million cancer survivors in this country and this number is expected to grow as screening tests increases, cancer treatment improve, and the US population ages. There is growing data to describe the magnitude of risk of cardiac adverse events in this population. A recent meta-analysis that included 8 clinical trials with more than 11,000 breast cancer patients revealed a 5 fold increased risk of congestive heart failure in women treated with anthracycline and trastuzumab. Adult survivors of childhood cancer have shown to have a 15 fold increased risk of congestive heart failure and 10 fold increased risk of coronary artery disease compared to their siblings. There are many chemotherapeutic agents implicated in causing LV dysfunction. Anthracyclines are the best studied of the anticancer drugs with established cardiotoxicity. They are extensively used in the treatment of wide variety of malignant diseases including breast cancer, sarcomas, leukemias and lymphomas. Anthracycline induced cardiac injury is characterized by progressive LV dysfunction which can lead to heart failure. Risk factors for developing cardiotoxicity include cumulative dose of anthracycline received, prior mediastinal radiation, extreme age, female gender, pre-existing heart disease and hypertension. Other adverse cardiac effects due to chemotherapy include hypertension, coronary ischemia, arrhythmia and thromboembolism.