

Control Number: 68

Abstract Category: Feature Your Cardio-Oncology Clinical Program

Title: A Pediatric Cardiology-Oncology Program

ABSTRACT BODY

Background

Cardiac-related mortality is 10-fold higher in childhood cancer survivors (CCS) as compared with age-matched controls, representing the third leading cause of death in this population (after recurrence and secondary malignancy). While many studies tried to define the incidence of cardiac toxicity, identifying subclinical toxicity is more important to prevent long term complications (LTC). The 2013 AHA Scientific Statement recommended more detailed monitoring, management and prevention, leading to many adult centers initiating cardiology-oncology (card-onc) clinics specifically focused on this population. However, the development of such programs has been limited in pediatric centers. Our objective was to develop a card-onc program that provides education, systematic monitoring and management of cardiac toxicity through early/subclinical detection leading to improved outcomes in CCS.

Methods

Our methods incorporated clinical changes, education and research. We educated cardiology/oncology teams, stressing the importance of a multi-discipline approach, developed imaging and multi-modality screening protocols and established dedicated multi-disciplinary clinics (with cardiologist) on the same day as oncology clinics to optimize patient accessibility. At clinic visits, patients met a pediatric cardiologist who directed necessary testing and directly reviewed results, plans and potential LTC.

Results

Over the past 7 years, we screened 2000 patients, identified 722 that received anthracyclines, in 1000 cardiology visits. Consistent with previous studies, we demonstrated 10% of these patients developed abnormal cardiac manifestations. All patients that completed treatment had a cardiology visit. Besides an echocardiogram, at times, testing also included electrocardiograms, Holters, stress test, MRIs, and serum biomarkers. The majority of families were surprised of the potential LTC and the need for life long follow up until told by the cardiologist.

Conclusion

We have built a dedicated team/program focused on card-onc addressing an important gap in pediatric card-onc. This has resulted in earlier detection of cardiac abnormalities, better communication between specialist and parents, and research alliances.

Clinical Implications

We are closing the gap in pediatric card-onc with dedicated screening, detection, and earlier treatment of pediatric cancer survivors/