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Spotlight on Special Topics

TRIGGERS AND OUTCOMES OF TAKOTSUBO CARDIOMYOPATHY IN CANCER PATIENTS

Poster Contributions

Sunday, May 16, 2021, 12:15 p.m.-1:00 p.m.

Session Title: Spotlight on Special Topics: Cardio-Oncology 5

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Background: Takotsubo cardiomyopathy (TC) is a well described entity characterized by transient and reversible left ventricular (LV) systolic dysfunction. Primary TC is triggered by psychological or emotional stress, whereas secondary TC could be due to trauma, surgery or medications. We aimed to compare outcomes in primary TC and secondary TC in cancer patients.

Methods: We retrospectively identified 80 patients who presented with TC to MD Anderson between December 2008 and January 2019. Baseline characteristics were obtained. We identified the triggers leading to TC. Univariate analysis was done using Cox regression. Kaplan Meier method (KM) was used to compare survival based on triggers.

Results: Mean age at presentation was 65.7 ± 9.3 years, 78% were females and 26% had solid tumors. Troponin T level at presentation was 0.78 ± 0.42 ng/ml, median BNP was 834, range 37-45472 ng/L, LV ejection fraction $39 \pm 12\%$. Fifty Percent of patients were on Aspirin, 34% were on Statin, 46% on Beta blocker and 41% on ACEi/ARB. Undergoing radiation therapy carried a Hazard ratio (HR) for developing TC of 2.5 (1.1-5.5) ($p=0.03$) and Chemotherapy HR was 1.98 (1.06-3.7) ($p=0.03$). Immune checkpoint inhibitors had a HR of 9 (2.5-31.8) ($p<0.01$), Colony stimulating factor HR was 10.8 (1.32-87.1) ($p=0.02$) and Notch inhibitors HR was 15.26 (1.8-130) ($P=0.01$). using KM, survival at 5 years was 70% when emotional trigger was the culprit, compared to 0% due to radiation, and 20% due to chemotherapy.

Conclusion: In cancer patients, secondary TC carries a significantly worse mortality when compared to primary TC.