TAKOTSUBO CARDIOMYOPATHY IN CANCER PATIENTS: TRIGGERS, RECOVERY, AND RESUMPTION OF THERAPY

Poster Contributions
Poster Hall B1
Sunday, March 15, 2015, 9:45 a.m.-10:30 a.m.

Session Title: World of Cardiomyopathies
Abstract Category: 14. Heart Failure and Cardiomyopathies: Clinical
Presentation Number: 1184-203

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Background: Despite being well recognized in general population, the natural history of Takotsubo Cardiomyopathy (TC) in cancer patients is largely unknown. We sought to define the triggers of TC in cancer patients and determine how TC impacts cancer therapy.

Methods: From cardiac catheterization database, patients who met the following inclusion criteria for diagnosis of TC were analyzed: 1) Transient left ventricular (LV) wall motion abnormalities extending beyond a single epicardial vascular distribution 2) Absence of potentially culprit coronary stenosis 3) New electrocardiographic (ECG) abnormalities or elevation of cardiac troponin.

Results: Over a 6-year period, we identified 38 cancer patients who met the inclusion criteria. The mean age was 65 ± 8.96 years, and 76.3% were women. Lymphoproliferative disorder (30%), gastrointestinal cancer (15%) and lung cancer (12.5%) were among the most common cancer. Majority of the patients (64%) have advanced stage cancer either stage IV or recurrent of disease. Triggering events were identified in 77.5% in which surgical procedures (such as abdominal surgery or stem cell transplant) was the most common trigger (37.5%). Chemotherapeutic agents including paclitaxel (2 cases), bevacizumab (2 cases) and fluorouracil (1 case) were reported as precipitating causes in 5 cases (13.16%). Chest pain and dyspnea were the most common symptoms (79%), while T wave inversion (68.4%) was the most frequent ECG finding. Elevated troponin, creatine kinase MB isoenzyme and brain natriuretic peptide occurred in 94.9%, 53.9% and 92%, respectively. The initial LV ejection fraction was 33.7% ± 8.7% and improved to 59.1% ± 5.6%. Among 25 patients who received ongoing cancer treatment, 16 patients (64%) were able to resume therapy (chemotherapy in 12 patients and surgery in 3 patients) within 1 month after diagnosis of TC. No recurrence of TC was found.

Conclusion: TC in the cancer patients is usually triggered by surgical procedure and less commonly by chemotherapy. All patients have complete recovery of LV function and resumption cancer therapy did not cause the recurrent of cardiovascular adverse event.