

## Background

Many chemotherapeutic agents have been known to cause cardiomyopathy; careful monitoring and appropriate management depending on the patient's condition is warranted.

## Case Presentation

We present a case of a 32-year-old female with past medical history of hyperthyroidism and Stage 4 endometrial cancer with peritoneal carcinomatosis who presented with dyspnea on exertion, cough, weakness, and fever. The patient had been diagnosed with stage 4 endometrial cancer 2 months prior and received 5<sup>th</sup> cycle of chemotherapy including paclitaxel and carboplatin one week prior to admission.

## Treatment and Plan

Patient was admitted with febrile neutropenia, pneumonia, and a new onset of congestive heart failure. Broad spectrum antimicrobials including vancomycin, Piperacillin-tazobactam, and oseltamivir were initiated. She had an initial echocardiogram 2 months prior hospitalization, before initiation of chemotherapy showing an ejection fraction (EF) of 60-65% and no diastolic dysfunction. Repeated echocardiogram on this admission, showed EF of 35% with generalized hypokinesia and grade II diastolic dysfunction. Patient was started on appropriate Guideline directed medical therapy (GDMT).

## Exam and Imaging

On admission, temperature was 101 F, blood pressure of 89/49 mm Hg, heart rate of 146 beats/min. Decreased breath sounds and rales were noted on the base of both lungs with an otherwise benign physical exam. ECG demonstrated sinus tachycardia.

Chest x-ray showed new left lower lobe consolidation and pulmonary congestion. Influenza & pneumococcal antigen were positive on admission. Patient had a white blood cell count of 900/uL and an absolute neutrophil count of 189/uL. She had a Brain natriuretic peptide level of 3001 pg/ml.

## Patient Outcome

Congestive heart failure clinically improved after starting GDMT and diuretics. Due to extensive metastatic disease not responding to chemotherapy, including compressing intraabdominal and retroperitoneal organs, patient condition deteriorated, and patient died due to acute respiratory failure secondary to aspiration pneumonia.

## Clinical Impaction

Cardiomyopathy related to anti-microtubule agents is not uncommon. We would like to emphasize on the importance of the closer monitoring with an echocardiogram after initiation of these agents. Furthermore, timely initiation of (GDMT) has an important role in the management of chemotherapy induced cardiomyopathy to prevent further complications.

## Disclosure

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