Control Number: 16

Abstract Category: Clinical Case Challenge in Cardio-Oncology

Title: Severe Three-Vessel Disease with Inducible Ischemia in a Patient with Metastatic Serous Adenocarcinoma of the Ovaries undergoing Palliative Chemotherapy

ABSTRACT BODY

Background and Purpose

The two leading causes of mortality are cancer and coronary artery disease (CAD), posing increasingly tricky challenges as survival improves. Toxicities like bradycardia, ventricular arrhythmia, heart failure, hypertension, and myocardial ischemia have been ascribed to different chemotherapeutic agents. Several publications have reported potential cardiotoxic effects of carboplatin in combination with paclitaxel, developed more frequently if patients had a history of cardiovascular diseases.

Case Description and Outcomes

An asymptomatic, hypertensive 71-year-old female with dyslipidemia had a pelvic screening ultrasound, due to her sister's BRCA-negative ovarian cancer, which revealed bilateral solid ovarian masses. The patient had a laparoscopic total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAH-BSO), omentectomy, and diaphragmatic stripping of stage III high-grade serous adenocarcinoma of the ovaries (pT3b NX). There were residual diaphragmatic nodules (largest deposit 1cm). She was found post-operatively to have severe CAD, with three-vessel disease, elevated troponin, and inducible ischemia. She was started on carboplatin and paclitaxel chemotherapy.

Discussion

One-and-a-half months post-TAH-BSO, she had disease progression with a new splenic lesion, increasing pelvic ascites, worsening omental infiltration, and peritoneal nodules for which she was started on palliative chemotherapy with weekly paclitaxel and carboplatin. She tolerated the chemo well, with an excellent clinical response. She developed peripheral neuropathy and fatigue, which resolved after a 15% dose reduction. Some alkylating agents can cause recurrent coronary spasm that occasionally leads to depressed contractility. This otherwise asymptomatic patient has had non-exertional self-resolving central chest heaviness lasting a few minutes, which could represent vasospastic angina. If the left main artery (LMA) stenosis were more significant, she could develop heart failure, which she has not. High-risk percutaneous coronary intervention to the right coronary and LMA could be considered if she develops cardiovascular complications.

References

1. Dermitzakis, Emmanouil V., et al. "The impact of paclitaxel and carboplatin chemotherapy on the autonomous nervous system of patients with ovarian cancer." BMC neurology 16.1 (2016): 190.
2. Bursac, D. S., et al. "Cardiotoxic effects of gemcitabin/cisplatin vs paclitaxel/carboplatin first-line chemotherapy in patients with advanced non-small cell lung cancer." Annals of Oncology 27.suppl_6 (2016).

Image 1

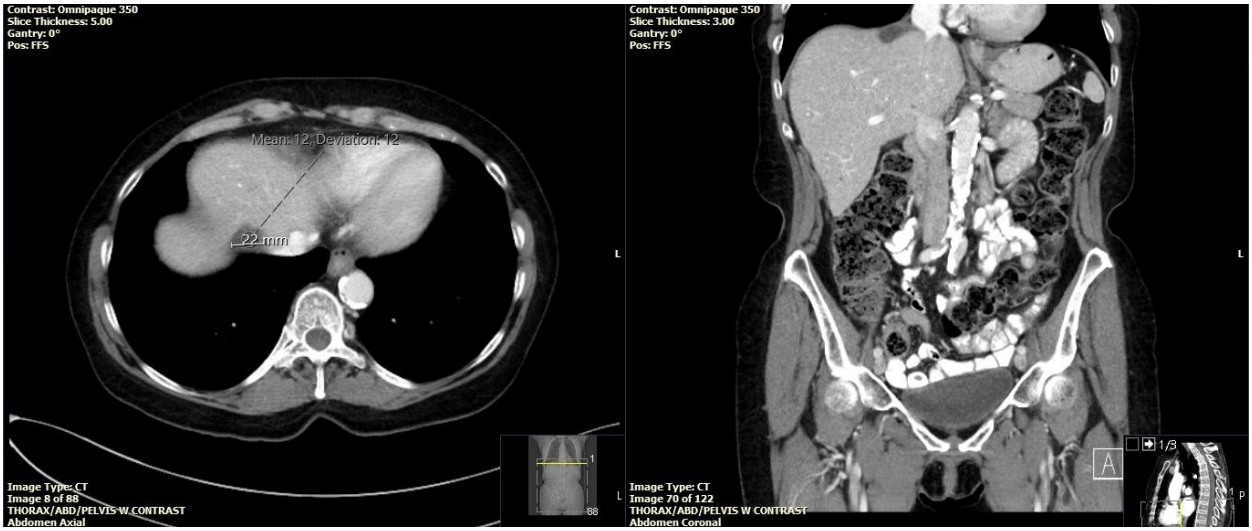

Image 2