

Myocardial perfusion defects after radiation therapy and anthracycline chemotherapy for left breast cancer: a possible marker of microvascular damage. Three cases and review of the literature

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ABSTRACT

Radiation therapy to the thorax may induce early and late cardiac adverse effects if large parts of the heart have been included in the irradiation field and particularly if anthracycline-containing chemotherapy is concomitantly administered. We describe 3 cases of cardiotoxicity in patients with left breast cancer treated with anthracycline-containing chemotherapy and left thoracic radiotherapy. In 2 cases we observed asymptomatic electrocardiographic abnormalities of ventricular repolarization mimicking anterior myocardial ischemia and SPECT reversible myocardial perfusion defects. In 1 case we observed echocardiographic abnormalities of left ventricular wall motion and reversible myocardial perfusion abnormalities. We recommend close cardiac monitoring of patients treated with anthracycline chemotherapy and left thoracic radiotherapy to better understand the clinical impact of these abnormalities.

Key words: breast cancer, anthracycline therapy, radiotherapy, cardiotoxicity, myocardial perfusion defects.

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Received January 10, 2007;
accepted April 4, 2007.