Introduction

Since their introduction in the 1960s, the anthracyclines, doxorubicin and epirubicin, have been considered to be among the most active agents for the treatment of breast cancer and are components of many adjuvant and palliative regimens. Their clinical utility is, however, limited by cumulative, dose-related progressive myocardial damage that may lead to chronic heart failure (CHF), reduced quality of life, or death (***O'Shaughnessy et al., 2002).***

Several other established and future chemotherapies for breast cancer are also known to have potentially important adverse effects on the cardiovascular system. These include taxanes, alkylating agents (e.g. cisplatin), antimetabolites (e.g. capecitabine), and mitoxantrone as well as some of the newer targeted agents, such as trastuzumab, bevacizumab, and the tyrosine kinase inhibitor, sunitinib ***(Jones and Ewer, 2006 and Chu et al., 2007).***

Radiation therapy to the chest has also been shown to have cardiotoxic effectse. As an increasing number of women survive breast cancer, the impact of cancer treatment on cardiovascular health is becoming ever more important. Since the early detection and treatment of cardiotoxicity can reduce its clinical effects, it is particularly important that oncologists are aware of these side-effects and manage them appropriately (***Bird and Swain, 2008)***.

The sequential and concomitant use of adjuvant therapies, combined with other risk factors, such as age, obesity, and physical inactivity, may increase cardiovascular vulnerability and, ultimately, the risk of premature cardiovascular-associated mortality in patients with breast cancer--a phenomenon labelled the 'multiple-hit' hypothesis. The consequences of the

multiple-hit have important implications for the use of chemotherapy in women with advanced breast cancer (***Jones et al., 2007)***.

Although these patients may already be at an increased cardiac risk because of their adjuvant treatment or biological risk factors, they may still benefit from anthracycline therapy to treat their cancer. It is important that clinicians are aware of preexisting co-morbidities and the short- and long-term cardiovascular effects that are associated with cancer treatments. Several strategies have been developed to reduce anthracycline-induced cardiotoxicity; however, no consensus currently exists on optimal monitoring for associated adverse cardiac effects in patients with advanced breast cancer (***Ewer and O'Shaughnessy, 2007 and Jannazzo et al., 2008)***.

Aim of the study

First,To identify the clinical and Echo-Doppler evidences of cardiovascular toxicity induced by Anthracyclines – based chemotherapy in female patients with breast cancer .**Second,**To identify the risk factor (s) for developing such toxicity.