Development of a Cardio-Oncology Service in the United Kingdom – a Report of 5 Year Experience


Affiliated Institution: Royal Brompton Hospital, Sydney Street, SW3 6NP

Presenting Author: Dr. Alexander R. Lyon.

Character Count: 1982

Background

Cancer treatments may be associated with cardiotoxicity (CT) and can be reversible with prompt diagnosis and institution of cardioprotective treatments. There has been an increasing demand for Cardio-Oncology services but there is little information about their experience in a real world setting.

Methods & Results

We evaluated baseline characteristics, rates of CT and treatments in patients who were referred to our Cardio-Oncology Service from Feb. 2011 to Feb. 2016.

536 patients (55.4% females) were referred with a median age of 63.2 years (Range 16 – 93 years).

Pre-existing cardiovascular risk factors were common with 34% having hypertension, 10% with a prior history of coronary artery disease, 6% had a prior history of heart failure (HF) and 8% had valvular disease.

Cancers from over 20 primary locations were referred; the most common were breast (29%) and sarcomas (19%). The majority of patients had potentially curative disease (68%), whereas 32% of patients had metastatic disease.

Reasons for referral were risk assessment before cancer treatment (44%), post-treatment HF (37%), an acute cardiac problem during chemotherapy (13.5%), another non-HF cardiac condition (21.3%) and assessment of cardiac masses (3.4%).

Echocardiography detected a LVEF of <55% in 27% and <35% in 5% of all referred patients. Late gadolinium enhancement by Cardiac MR was detected in 18% of all patients. BNP was commonly raised (in 75% of all patients) whereas Troponin was positive in only 5%.

347 patients were previously treated with chemotherapy and, of these, 33% had evidence of CT (defined as a drop in LVEF to <55%). Rates of CT were as follows: Anthracyclines - 45%, anti-HER2 therapy - 47%, Tyrosine Kinase Inhibitors - 32%.

After the first visit in our unit, of the 147 patients with reduced LVEF, 76% were commenced on or had dose up-titration of ACEI or ARB, 65% treated with a beta-blocker, 10% patients with aldosterone antagonists. 22% required oral diuretics.

Conclusions
In this descriptive analysis reporting the medical activity of a UK Cardio-Oncology service, we observed a higher CT rate than reported in the literature. More studies are needed to understand the clinical outcomes and the benefits of Cardio-Oncology Units.