

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

Nilesh Pareek, Vicky Chambers, A. John Baksi, Rajdeep S. Khattar, Rakesh Sharma, Stuart D. Rosen, Alexander R. Lyon.

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

Presenting Author: Dr. Alexander R. Lyon.

Character Count: 1982

Background

Cancer treatments may be with 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.