

Radiation and cardiovascular disease

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Coronary heart disease (CAD) and cancer are the two leading causes of morbidity and mortality worldwide. It is estimated that more than 50% of patients with cancer are treated with radiotherapy. The prognosis of many cancer has improved and increasing number of patients now go on to live an active and normal adult life, as evident by an increasing number of cancer survivors. Due to improvement in radiation technique the risk of cardiovascular complications in relation to radiation may have declined over time, but even in patients treated as lately as between 1979-1986 the risk congestive heart failure and valvular dysfunction remained increased. Mediastinal radiation causes a wide spectrum of disease involving the pericardium, valves, myocardium and coronary vessels, resulting in pericarditis, valvular disease, cardiomyopathy and premature accelerated coronary atherosclerosis. Asymptomatic CAD is also prevalent in this patient population, with perfusion abnormalities developing in 27% of patients at 6 months of radiation therapy. Due to small number of patients and short duration of follow up, the long term consequence of these perfusion defects is not known. With improvement in radiation techniques, the cardiovascular affects my decrease over time. However these new techniques may not be available in less privileged countries for many years, exposing million of patients to current radiation techniques. Hence as such the emphasis should be on prevention, early detection and aggressive treatment of concomitant cardiovascular risk factors.

Biography

Dr S.Wamique Yusuf is an Associate Professor of Medicine at the University of Texas MD Anderson Cancer Center. He qualified from Dow Medical College, Karachi and trained in Internal Medicine in the United Kingdom. He moved to USA in 1996 and completed his cardiology fellowship from the University of Texas, Houston. He is a member of the Royal College of Physicians of Ireland and a Fellow of American College of Cardiology. He is Board certified in Internal Medicine and Cardiology. In addition to the busy clinical work, he is involved in the clinical training of fellows and medical students and is also the Program Co-Director for the American College of Cardiology Cardiovascular Board Review.