Vinay Sharma et al., J Cancer Sci Ther 2019, Volume 11
DOI: 10.4172/1948-5956-C4-168

Conformal radiation therapy for breast cancer

Vinay Sharma, Lutendo Nethwadzi, Sesana Mbatha and Dikiledi Kometse
University of Witwatersrand, South Africa

Conformal radiation therapy for breast cancer is being used as a standard radiation therapy technique in most centers in the world. The aim of the study was to document the doses to lung and heart (organs at risk) in addition to breast tumor volumes to correlate with treatment related toxicities. A total of 115 patients of cancer of breast underwent CT scans and planning procedure after decision at the multidisciplinary management meeting during 2016-17. Both right and left breast were almost equally affected right 62 patients (54%) and left 53 patients (46%). All patients had MUGA scans before RT planning. 43 patients (37%) had conservative breast surgery and 72 had mastectomies. 74 patients (64%) received 50 Gy in 25 fractions and 39 (34%) patients had 40.05 Gy in 15 fractions. The radiation therapy was delivered using 6 Mv photos with different fields. The patients with conservative surgery received a boost to the tumor bed following tangential field. The patients with locally advanced disease and nodal involvement received radiation to chest wall as well lymph drainage areas. 48% (56 patients) had radiation to chest wall and lymph drainage areas; 30 patients (26%) had tangential field and tumor bed boost. The lung constraints used were V20=≤30Gy, V8=35-40% and mean lung dose=<15 Gy. 106 patients (92%) achieved the lung constraints. The heart constraints used were V25 Gy=<10% and mean heart dose=<26 Gy. The heart constraints could be achieved in all except one patient both V25 as well as mean heart dose. Conformal radiation was able to achieve the aim of study and constraints were maintained in over 90 percent patients. There is no toxicity reported up till now on follow up and is increasingly being practiced.

Biography

Vinay Sharma is currently working as Head of Department of Radiation Oncology at Charlotte Maxeke Johannesburg Academic Hospital, University of Witwatersrand. He has published over 150 papers in in national and international peer reviewed journals as well as book chapters. His main research interest is in breast cancers as well as gynecological malignancies.

vinay.sharma@wits.ac.za

Notes: