

## Rationale of Establishment of Cardio-oncology Multi-disciplinary Team Tumour Boards in Pakistan

Sir,

We are witnessing a remarkable improvement in the outcome of cancer patients' treatment. Better and early treatment is resulting in a larger number of cancer survivors who are enjoying good quality of life after their curative oncological management. As, now we have a bigger number of cancer survivors, we are seeing more iatrogenic long-term adverse effects of systemic chemotherapy and radiation treatment. Cardiac diseases also manifest in cancer survivors with increasing age. Curing cancer is an achievement which is well appreciated by the treating clinicians, patients, and their relatives.

The number of survivors of cancer is increasing day-by-day. A report published in 2016 quoted an estimated number of over 20 million cancer survivors in the USA and Europe. As one can expect, this increase in survival is accompanied by rise in adverse cardiovascular events, particularly when there is previous history of heart disease. Another important factor is the rise of aging patients population in developed countries.<sup>1</sup> By virtue of research advancements and better clinical care, the specialist area of cardio-oncology has grown rapidly during the last decade. This sub-discipline of healthcare is addressing the clinical needs of this specific cohort of patient population.<sup>2</sup>

Deliberations at a dedicated multidisciplinary team board would definitely benefit the patients, as a consensus recommendation can be reached after thorough discussion among experts. Cardiologists with a special interest in cardio-oncology can be one of the leading specialist clinicians in this proposed multidisciplinary team.<sup>3</sup> With the advent of modern linear accelerator equipment of radiation treatment delivery, the iatrogenic adverse effects are decreasing with time. New radiotherapy planning soft-wares are also enabling us to plan homogenous volumes of tumours sparing organs at risk. In this way, untoward doses of radiation are avoided increasing the therapeutic ratio of higher dosages to the target volumes and minimal dosages to the nearby normal tissues. Contemporary literature shows that the radiation treatment had decreased the 10-year mortality of breast cancer by 4% but it has increased mortality by cardiovascular causes by a factor of 0.2% in the cancer survivor cohort.<sup>4</sup> Children who get curative radiotherapy are also vulnerable for the late side effects of treatment and they are the long-term survivors. Special considerations are required for cardiac symptoms and signs appearing in these children.<sup>5</sup> In Sweden, a population-based large study was conducted which included all breast cancer patients who were

diagnosed from 1992 to 2012. This study covering three health-care regions of Sweden, revealed that females with left-sided breast cancer patients had a higher risk of ischemic heart diseases than the patients with right-sided tumours. An increased hazard ratio for ischemic cardiac conditions was seen in this set of population. The risk was found to be increased in cases where systemic cytotoxic treatment was also given. The same raised ratio was observed in patients who had heavy lymph nodal involvement of breast cancer.<sup>6</sup> Establishment of a multidisciplinary team board of cardio-oncology will lead to a better understanding of treating clinicians who are dealing with specific cardiac conditions arising in patients who had received systemic therapy or radiation treatment in the past.

### COMPETING INTEREST:

The authors have declared no competing interest.

### AUTHORS' CONTRIBUTION:

ANA, CC, ADA: All authors have contributed equally in writing this letter to editor.

### REFERENCES

1. Fiuza M, Ribeiro L, Magalhães A, Sousa AR, Nobre Menezes M, Jorge M, Costa L, Pinto FJ. Organisation and implementation of a cardio-oncology program. *Rev Port Cardiol* 2016; **35(9)**:485-94. doi: 10.1016/j.repc.2016.04.006.
2. Brown SA, Yang EH, Branch M, Beavers C, Blaes A, Fradley MG, et al. Training and career development in cardio-oncology translational and implementation science. *Heart Fail Clin* 2022; **18(3)**:503-14. doi: 10.1016/j.hfc.2022.02.014.
3. Abbasi AN Establishment and maintenance of quality of site-specific multidisciplinary tumor boards in Pakistan. *J Coll Physicians Surg Pak* 2016; **26(10)**:805-7.
4. Acevedo F, Ip T, Orellana M, Martínez G, Gabrielli L, Andia M, et al. Oncological benefit versus cardiovascular risk in breast cancer patients treated with modern radiotherapy. *J Clin Med* 2022; **11(13)**:3889. doi: 10.3390/jcm11133889.
5. Parkes J, Hess C, Burger H, Anacak Y, Ahern V, Howard SC, et al. Recommendations for the treatment of children with radiotherapy in low-and middle-income countries (LMIC): A position paper from the pediatric radiation oncology society (PROS-LMIC) and pediatric oncology in developing countries (PODC) working groups of the international society of pediatric oncology (SIOP). *Pediatr Blood Cancer* 2017; **64 Suppl 5**. doi: 10.1002/pbc.26903.
6. Wennstig AK, Wadsten C, Garmo H, Fredriksson I, Blomqvist C, Holmberg L, et al. Long-term risk of ischemic heart disease after adjuvant radiotherapy in breast cancer: Results from a large population-based cohort. *Breast Cancer Res* 2020; **22(1)**:10. doi: 10.1186/s13058-020-1249-2.

Ahmed Nadeem Abbasi<sup>1</sup>, Calogero Casa<sup>2</sup> and Andrea Daviero<sup>3</sup>

<sup>1</sup>Department of Oncology, The Aga Khan University Hospital, Karachi, Pakistan

<sup>2</sup>*U.O.C. di Radioterapia Oncologica, Fatebenefratelli Isola Tiberina - Gemelli Isola, Rome, Italy*

<sup>3</sup>*Mater Olbia Hospital - Strada Statale 125 Orientale Sarda, Olbia OT, Sardinia, Italy*  
.....

*Correspondence to: Prof. Ahmed Nadeem Abbasi, Department of Oncology, The Aga Khan University Hospital,*

*Karachi, Pakistan*

*E-mail: nadeem.abbasi@aku.edu*

.....

*Received: September 05, 2022; Revised: October 01, 2022;*

*Accepted: October 04, 2022*

*DOI: <https://doi.org/10.29271/jcpsp.2023.03.358>*

.....