



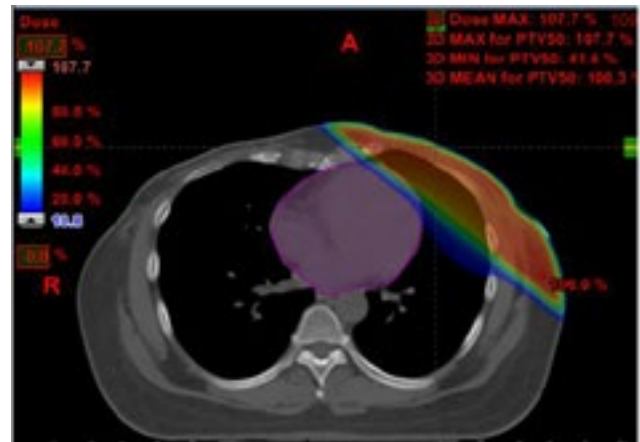
Hayes Jillian

Hamad Medical Corporation, UAE

Breathing controlled cardiac sparing for patients undergoing left sided breast radiotherapy, theory and practice of a voluntary inspiration breath-hold technique (VIBH)

Due to the overall improvements in breast cancer treatment, long-term cause specific survival has improved significantly over the past few decades. Radiotherapy is an essential component of multimodal breast cancer treatment. However, with the increasing use of radiotherapy and the larger number of women surviving for many years after treatment, more patients are at risk of developing chronic toxicities associated with their care. In particular, toxicities to the heart carry the potential for reduced survival. In conventional breast radiotherapy the patient is breathing freely, however, several techniques have recently been used to reduce the volume of cardiac tissue in the radiation field. Amongst them is Voluntary Inspiration Breath Hold (VIBH), where the patient holds a quantified inspiration for the duration of treatment delivery. By holding inspiration during beam on, the distance between the chest wall and cardiac structures is increased (Fig 1). This increased distance can be exploited in order to reduce the radiation dose received by the heart. VIBH is an evidence based, simple, inexpensive, and equipment free breath holding technique, with proven inter and intrafraction reproducibility. Breath hold consistency is monitored prior to and during radiotherapy delivery by means

of in room treatment lasers and imaging. Dosimetric studies demonstrate a reduction in dose to cardiac tissue when VIBH is applied without compromise of target volume coverage. This presentation presents background analysis of the need for cardiac sparing techniques in left sided breast radiotherapy along with practical insights with respect to its real time clinical application of the VIBH technique.



Biography

Hayes Jillian has graduated from Trinity College Dublin (University of Dublin) in 2003 with first class honours. She has worked internationally and regionally as a radiation therapist and completed her master's degree whilst working full-time at the front line of NHS patient care service at the Royal Marsden NHS Foundation Trust, London. She has achieved many commendations for her academic and professional pursuits and has much experience presenting clinical research and practice internationall

jillianhayes@gmail.com