



BRACHYTHERAPY

Our perspectives on the Groupe Européen de Curiethérapie-European Society for Radiotherapy and Oncology online workshop 9-10 Feb 2022

After the late cancellation due to COVID-19 of the Groupe Européen de Curiethérapie-European Society for Radiotherapy and Oncology (GEC-ESTRO) workshop in Rotterdam that had been planned to be held last November, an online workshop was held instead in February 2022. Thanks to Elekta and Varian, the event was free of charge and over 700 people registered to attend it. The theme for the workshop was “What’s next? Emerging opportunities”, and with a programme packed with seminars it seemed that there was much going on in brachytherapy. The seminars covered a large range of different treatment sites and all types of brachytherapy concerns, from clinical studies through dose calculations and the development of new applicators to quality-of-life measures.

How the online environment worked

The video environment of Zoom worked very well. Questions were asked in a question-and-answer function, where all participants saw the answers as they were typed in. The chairs of the sessions held some discussions around some of the questions, which added to the content of the presentations. The schedule of the workshop was tightly followed. As it was an online event with parallel sessions, participants could choose which parts to attend without leaving their seats.

Some highlights of the programme

There were three interesting talks about the cervical cancer study (EMBRACE), which included discussion of how the study would carry on with EMBRACE III. I found discussion of the de-escalation of the prescribed dose to low-risk patients especially interesting. Could we try to lower the risk of complications in this group while maintaining good treatment results? It will be interesting to see the results from the study.

Cervical cancer is treated through a combination of external-beam radiotherapy and brachytherapy, and Taran Paulsen-Hellebust gave a presentation regarding what must be considered when the doses from these two forms of radiotherapy are combined. There are many things to consider: the anatomy changes when an applicator is placed into the treatment site, the imaging modality can differ between the different treatment types, and in brachytherapy there are higher dose gradients.

The use of deformable image registration (DIR) was presented. The session concluded that DIR is not yet ready for use as a clinical method as more investigations are required, but dose-volume histogram parameters for rectum and bladder can be adequately evaluated.

Treatment planning in brachytherapy is becoming more exact with the introduction of model-based dose calculation algorithms. This subject was presented first by Elisa Placidi, who talked about how the algorithms could be implemented, and some experiences that she had noted in her clinic and that had been explained in the literature. Javier Vijande then talked about the commissioning and implementation of these algorithms. And of course there was a forward-looking presentation on how artificial intelligence could be used for brachytherapy treatment planning.

Remarks

These were some of the highlights from our perspective. The workshop presented interesting insights on notable activities in the brachytherapy community.



Frida Dolmar

Medical physicist & PhD student
Linköping University Hospital
Linköping, Sweden



Mark Rivard

Medical physicist and Professor
Brown University & Rhode Island Hospital
Providence, Rhode Island, USA

