

Dear Readers,

It is my honor to introduce the last issue of the "Journal of Contemporary Brachytherapy" this year. The present year is heading to its' end, and I hope it is the last one to be so tremendously impacted by the COVID-19 pandemic. Somehow, we got used to cope with all the restrictions influencing our cancer treatment efforts and patient care. We were able to get available vaccines, follow hygienic recommendations, and persuade the vaccination opponents to accelerate the process of eliminate this awful virus. I wish all to prosper 'normally' finally.



The JCB 6/2021 contains eleven clinical papers, two physics' contributions, and one case report. The issue opens with the Italian Association of Radiotherapy and Clinical Oncology (AIRO) and the Italian Association of Radiation Therapy and Medical Physics Technologists (AITRO) significant joint project on the role of radiation therapy technologist (RTT) in interventional radiotherapy. Our Italian friends identified a need for additional education and training for RTTs. I warmly support their thinking; it should focus on treatment management optimization in developing a BT multi-professional team. Nothing could have been done without bright and devoted RTTs in my daily clinical practice!

Yuan-Hong Lin *et al.* (Australia) conveyed a multi-institutional analysis of hydrogel and hyaluronic acid rectal spacer impact on rectal dosimetry and toxicity in LDR prostate BT. It is safe, and results in a significant rectal dosimetry reduction, translating into significantly reduced acute and late GI toxicities. Concetta Laliscia *et al.* (Pisa, Italy) reported on HDR-BT results of non-melanoma skin cancer treatment using Valencia-type applicators. It is considered a safe, effective, and well-tolerated modality, a good alternative particularly for elderly patients often unfit for surgery, with a 2-year high local control rate of 96%.

The following seven clinical manuscripts are related to gynecological malignancies. Christine H. Feng *et al.* (CA, USA) tried to identify the degree of BT use in cervical cancer and referral patterns in a Western United States border region. Karnataka's specialists (India) evaluated the dosimetric impact of inter- and intra-application variations in fractionated HDR intracavitary BT of cervical cancer. They emphasized the need for an individual approach for each following fraction due to significant variations in OARs doses between each application. Keita Mamady *et al.* (Guinea) shared their study results on the efficacy and safety of image-guided HDR interstitial BT for post-operative cervical cancer pelvic side-wall relapses and the value of a tube combined with real-time ultrasound in obtaining the application accuracy.

A Chinese group from Beijing compared multichannel cylinder and 3D-printed applicators used for vaginal cuff BT with a preliminary exploration of post-hysterectomy vaginal morphology. It appears that 3D-printed devices enable the delivery of higher doses to larger volumes, and offer more homogeneous and conformal target coverage. Their interesting figures are displayed on the issue's cover. Mumbai's group (India) presented a simple modification of the Houdek vault applicator as a solution for intra-cavitary and interstitial HDR-BT boost in isolated post-surgical vault cancers, and achieved acceptable dosimetric parameters, satisfactory preliminary clinical outcomes, and late toxicities. María del Carmen Salas Buzón *et al.* (Spain) prospectively studied the dosimetric impact of bladder filling on OARs with barium contrast in the small bowel for adjuvant vaginal cuff BT. Full bladder reduces the dose to the small bowel with no impact on the dose in other OARs. Finally, Emily Flower *et al.* (Australia) presented a single-institution review of image-guided BT for vaginal malignancies using customized molded applicators and interstitial needles. They achieved acceptable doses to the CTV with 67% LC and reasonable doses to OARs, causing acceptable toxicity.

The last clinical paper by Shuangxi Li *et al.* (China) is on an innovative combination of portal vein stent insertion and endovascular iodine-125 seed-strip implantation, followed by transcatheter arterial chemo-embolization, sorafenib, for the treatment of hepato-cellular carcinoma-associated portal vein tumor thrombus. The approach represents a potentially viable strategy for improving hepatic functionality, disease control rate, and overall survival.

The two consecutive papers are on physics. In the first, a Spanish group evaluated the impact of the EMBRACE II study in Spanish centers with a large cohort of patients. As it appeared, the adaptation through increasing the treatment's interstitial component and physician and physicist training resulted in a significant increase of HR-CTV doses or a reduction of OARs doses. Congratulations! In the second paper, Jan-Erik Palmgren *et al.* (Kuopio, Finland) asked if adaptive treatment planning for one channel vaginal BT is necessary? In conclusion, they recommend individualized image-based planning for the first BT fraction.

Ending the list of articles, let me point out the successful case of orbital mold BT for recurrent and previously irradiated orbital mesenchymal chondrosarcoma submitted by Eugene Yap *et al.* (Philippines).

I am sure everyone will find interesting content to read and ponder.

Taking this opportunity, I would like to wish you a well-deserved rest during the Holidays, and a hopeful and prosperous New Year 2022.

Yours sincerely,
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Editor-in-Chief
Journal of Contemporary Brachytherapy