

Dear Friends and Brachytherapy Fellows,

It is my great honor and pleasure to use the opportunity to communicate with you via this Editorial. Currently, in Poland, the pandemic is again on its third, steeply growing wave of active infections. Till now, it already took over 58 thousand lives, which makes us all sad. Many patients delayed their diagnosis and showed up with more advanced cancer, leading to unprecedented and undesired premature deaths. Many countries face problems with vaccine accessibility. Fortunately, in the Greater Poland Cancer Centre, where I usually offer brachytherapy treatment, about 95% of the staff was fully vaccinated. We feel secure, treating cancer almost the same way as before, except necessary precautions, and I wish all of you and your patients to feel the same way.



The JCB 2/2021 contains eight clinical papers, three physics contributions, one case report, one pictorial essay, and two reviews. Let me start and highlight two fantastic reviews submitted lately, which found their place, one next to another, at the end of the issue. Both summarize the current knowledge of the guidelines and recommendations on managing uterine cancer with vaginal cuff interventional radiotherapy (brachytherapy). Krystyna Serkies *et al.* (Polish Brachytherapy Society, Gdansk) present recent evidence on the most common endometrial cancer. In turn, Francesca de Felice *et al.* (Italy) systematically review the rare histological types of uterine malignancies, e.g., carcinosarcoma, clear cell, and papillary serous carcinomas.

Intentionally, I designed our cover with figures and photos from the case report submitted by Xiaokun Hu *et al.* from Qingdao University, China. In my opinion, their innovative approach based on CT-MRI fusion images and intra-operative hologram usage, with mixed MRI reality guidance for neuro-navigated interstitial iodine seeds implantation, is truly outstanding.

The issue opens with two clinical manuscripts focused on ocular melanoma. David Miguel *et al.* (Valladolid, Spain) analyze the regression rates and local control of uveal melanomas for a large group of patients treated with  $^{125}\text{I}$  plaques, based on the initial tumor apical height. Also from Spain, Antonio Piñeiro Ces *et al.* advises on the adoption of intra-operative ultrasound control to improve the accuracy of radioactive plaque placement for the treatment of medium-small uveal melanomas located posteriorly. The technique should probably be applied in all brachytherapy cases, regardless of the isotope chosen, to perfectly adjust the therapeutic position.

Two consecutive works focus on prostate cancer. In the first one, Silvia Rodriguez Villalba *et al.* (Spain) presents results of LDR-BT or HDR-BT boost in prostate cancer patients treated with EBRT. Long-term effects confirm that combined treatment is an excellent therapeutic option for patients with intermediate-risk prostate carcinoma, with similar results in both approaches and very low toxicities. In the second one, Wayne M. Butler *et al.* (USA) shows the effect of the timing of hydrogel spacer placement on the prostate and rectal dosimetry of LDR-BT implants. It appears that hydrogel spacer injection enables a significant rectal dose sparing similarly in both sub-groups of patients: injected before EBRT and at the conclusion of brachytherapy.

The following three clinical manuscripts are related to gynecological malignancies. Yasemin Bolukbasi *et al.* (Turkey) delivers a survey that shows variations in the clinical practice of vaginal BT among 57 Turkish radiation oncologists. It revealed a need for standardization in terms of dose, fractionation, and dose prescription length. The authors from Albert Einstein College of Medicine (USA) reported on the impact of dose and tumor volume metrics at BT on outcomes for locally advanced cervical cancer treated with tandem and ovoids IC/IS brachytherapy. According to their conclusion, the tumor volume based on median HR-CTV  $\geq 40$  cc at BT is a predictive for poor outcomes even within initial FIGO stage groups, warranting caution. Lastly, Mehmet Bayrak *et al.* (Turkey) analyze 317 patients in whom a cervical sleeve technic was used and reduced the need for multiple insertions. Also, the instrument's placement by an expert gynecologist minimizes the risk of complication relative to historical controls.

The eighth clinical paper is on the outcomes following HDR surface applicators BT for rare and challenging angiosarcoma of the scalp and face. Devarati Mitra *et al.* (USA) found the local control rates following such a treatment modest and similar to other treatment modalities; smaller tumors and those involving the face had better outcomes. Nonetheless, a further chase for treatment intensification and novel therapeutic options is warranted.

Consecutive three physical contributions focus on surface brachytherapy. The German group from Frankfurt reports on dosimetric treatment planning evaluations concerning patient-adapted molds for  $^{192}\text{Ir}$  HDR-BT. The technique provides good target coverage and OARs' protection, and individual molds are a safe modality for a routine treatment of perinasal skin tumors. Grzegorz Bielęda *et al.* (I am proud of being blessed to work with this individual daily, clinically, and editorially) prepared a dosimetric assessment of the impact of low-cost materials used in stereolithography in HDR-BT. He conducted a study to measure the influence of different materials used for 3D printing.

Ivan Buzurovic *et al.* from Harvard Medical School (USA) attempt to establish the selection criteria for HDR-BT technique and EBRT in various clinical scenarios of cutaneous malignancies. The HDR-BT revealed superior CTV coverage for superficial lesions when the surface was extensive, complex, curvy, or rounded, and when the topology was complicated.

Last but not least, Ryan Thibodeau *et al.* (USA) present a practical case-based pictorial essay on the advantages of real-time transabdominal ultrasound guidance in combined IS/IC cervical BT. Not to be omitted.

Yours sincerely,  
Adam Chichel, MD, PhD  
Editor-in-Chief

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