

Dear Friends and Brachytherapy Fellows,

It makes no difference that we have Summer in Europe, Winter in Australia, etc. Despite the holidays, our Publishing House is fully operating and working perfectly. Numerous papers are being submitted, and I encourage our devoted Editors to distribute the manuscripts to many of our worldwide reviewers. I would like to thank all the people engaged in creating the "Journal of Contemporary Brachytherapy" – our high-quality platform for brachytherapy research presentation. Our joint efforts result in fruitful and constructive readership feedback, cite scores, and all relevant indexes that are stable or gradually improving. Congratulations to all! What a splendid job!



The JCB 4/2021 is very diverse and exciting, and contains nine clinical papers, exceptional one physics' contribution, one technical note, one case report, one review, and two educational articles.

To start with, I would like to underline two papers from Educational Corner. Canadian group prepared a comprehensive and up-to-date overview of the current state of additive manufacturing (3D printing) in superficial brachytherapy (plesiotherapy). I am sure that after reading this article, you would feel like 3D printing! In the second paper, Artur Bezugly *et al.* summarize all the most relevant information on high-frequency ultrasound (HFUS) in skin oncology. HFUS can provide essential information on tumor characteristics and influence proper clinical decisions. This article is very interesting and informative; therefore its' figures are printed on the cover.

The current issue begins with a comprehensive systematic review and meta-analysis on high-dose-rate (HDR) fractionated monotherapy for localized prostate cancer by Eric Anderson *et al.* (Los Angeles, USA), yet another voice in favor of brachytherapy (BT) associated with high-rate of disease control and low-rate of toxicity. Low-dose-rate (LDR)-BT is also very effective, but Sophie Robin *et al.* (Lyon, France) pay attention to the impact of meeting the eligibility criteria according to EAU/ESTRO/SIOG guidelines on prostate cancer relapse-free survival. Not properly met criteria means worse patient's perspective for a cure – to be noted.

Indian Brachytherapy Society members wrote on patient-reported quality of life (QOL) with interstitial APBI and WBRT. They conveyed propensity score matching for various factors, and found similar QOL in both groups.

Investigators from China do not lay down their arms! They latest paper from Beijing is on the efficacy of <sup>125</sup>I interstitial BT, and this time, a non-surgical approach for treating primary locally advanced adenoid cystic carcinoma at the base of the tongue is presented. Is it effective? Is it safe? Find out for yourself.

The second H&N manuscript comes from France, in which Pierre-Marie Pialat *et al.* conclude that multimodal treatment, such as salvage BT, may offer a curative option for selected previously irradiated patients, with an acceptable risk of severe toxicity for the treatment of new primary or recurrent tumors.

Again from China, and again on iodine seeds, Zhe Ji *et al.* present a study on a 3D-printed template and optical needle navigation in CT-guided <sup>125</sup>I implantation. They showed good accuracy, intra-operative puncture information, and post-operative doses agreement with pre-operative plan, and demonstrated promising prospects for further development.

The following two clinical manuscripts are related to gynecological malignancies. Alexander Yaney *et al.* (USA) evaluated clinical outcomes of distal vaginal and vulvar cancers treated with EBRT and image-guided BT. Such treatments provide meaningful loco-regional control, with mainly skin and vaginal toxicities. Sasan Razmjoo *et al.* (Ahvaz, Iran) introduce a prospective interventional study on the role of non-absorbable oral antibiotics in bowel preparation for intracavitary vaginal cuff BT. The effect of rifaximin on rectal DVH parameters resulted in no significant difference.

In the last clinical manuscript, the authors from Cracow (Poland) ask a question: Which is better in the ring melanoma patients – brachytherapy or enucleation? They present their own experience.

The single physics' contribution describe advanced dose calculation algorithm in superficial brachytherapy. Marta Szlag *et al.* from the Polish Brachytherapy Society (Gliwice, Poland) investigated the impact of tissue inhomogeneity on the treatment plan dosimetry. They found statistically significant differences, which require further research in terms of clinical relevance.

A technical note by Ravindra Yaparpalvi *et al.* (USA) present their results on the correlation of total reference air kerma (TRAK) with the prescription isodose surface volume in vaginal cylinder HDR-BT. They demonstrate that the correlation yields a valid predictive equation and enables quick verification of planned treatment time.

A case report by Hiroaki Kunogi *et al.* (Japan, USA) share the experience of unresectable bulky chest wall recurrent breast cancer controlled with CT-guided interstitial HDR-BT boost and EBRT with adjuvant hormonal therapy. It is an example of a challenging and individualized but successful treatment strategy.

Last, but not least, please look into the review. Maximilian Fleischmann *et al.* (Germany, Switzerland) indicate that brachytherapy is an underestimated partner with immuno-therapeutic approaches in curative and palliative settings to generate local and systemic responses. The review summarizes the potential benefit of brachytherapy combination with immuno-therapeutic strategies against the background of so far limited data.

Wishing you an excellent and relaxing lecture! As well as sunny, joyful holidays!

Yours sincerely,  
Adam Chichel, MD, PhD  
Editor-in-Chief  
Journal of Contemporary Brachytherapy