

Dear Friends and Brachytherapy Practitioners,

I gladly introduce the first issue of the "Journal of Contemporary Brachytherapy" this year. The 2022 year has just started, yet we face another COVID-19 high wave of infections. Whatever happens with the pandemic, we treat our patients with constantly high standards of care. Facing the problem, Yale University (USA) authors submitted their preliminary report. They verified a novel institutional approach during the COVID-19 pandemic: a single-application hybrid interstitial BT for cervical cancer. Local control outcomes demonstrated the regimen effective; however, the increased risk of mucosal toxicity need to be observed and monitored.



A word about some changes in the JCB Editorial Board: Dr. Ann Henry (Manchester, UK) after years of valuable service and manuscripts management had moved to another professional practice and decided to leave the Board. Dr. Ann, please accept my best words of gratitude for what you have contributed to the JCB within the last years. Many thanks! Therefore, some arrangements had to be made, and please welcome on board: Dr. Toni Barnes (Toronto, Canada), Dr. Maria Serra (Manchester, UK), and Dr. Leonel Varela (Marseille, France). They all accepted my invitation to join our team. Godspeed!

The JCB 1/2022 issue contains nine clinical papers, one preliminary report (mentioned above), two physics' contributions, one technical note, and one exceptional pictorial essay.

The issue opens with Héloïse Lavoie-Gagnon *et al.* (Quebec, Canada) project on the advantages of TRUS delineating for HDR prostate BT planning. Next, Johansson Bengt *et al.* (Örebro, Sweden) tried to find toxicity predictors caused by HDR-BT single-boost for prostate cancer, and reassured all that this curative treatment approach for localized prostate cancer is well-tolerated. In a similar clinical scenario, Marcin Miszczyk *et al.* (PBS Gliwice, Poland) presented an analysis of post-treatment PSA kinetics. They concluded that lower values of nadir PSA (0.2 ng/ml) are significantly associated with a decreased risk of developing metastases in patients treated with EBRT combined with HDR-BT boost and ADT, and improve the accuracy of a clinical model for metastatic-free survival.

Regarding H&N BT, Miguel Santos *et al.* (Valencia, Spain) shared their results on tongue cancer treated with combined conservative surgery and interstitial HDR-BT. They show similar results to radical surgery or EBRT alone, allowing for more patient-tailored approach, with good organ function preservation and cosmetic outcomes.

Again from Spain (Badajoz), Victoria Vera Barragán *et al.* submitted an essential study on treating keloid scars with perioperative interstitial HDR-BT adjuvant. They achieved excellent results, with a recurrence rate of only 4.9% as well as excellent cosmetic outcomes. They suggested that this technique might be one of the best options for treating keloids and for re-growth prevention.

Research on iodine seed implants from China appears as a rule. This time we publish an alternative approach for treating specific mediastinal metastatic tumors with CT-guided transsternal ¹²⁵I seeds implantation.

The last three clinical papers relate to gynecological malignancies. The Polish Brachytherapy Society group from Gliwice (Poland) assessed long-term single-center results of pre-operative HDR-BT in over 100 early-stage cervical cancer patients. The treatment was well-tolerated and effective in sterilizing tumor cells in the cervix. Next, Naoya Murakami *et al.* (Tokyo, Japan) found that bevacizumab increased late toxicity in re-irradiation with image-guided HDR-BT for gynecological malignancies. In the third paper, also considering re-irradiation, Keiko Nemoto Murofushi *et al.* (Tsukuba, Japan) concluded that interstitial HDR-BT may be an effective treatment strategy for gynecological cancer patients with vaginal recurrence after previous post-operative pelvic irradiation.

The consecutive two papers are on physics. First, the Turkish group evaluated automatic contouring using deformable image registration (DIR) for tandem-ring or tandem-ovoid brachytherapy. DIR significantly decreased the time for contouring, and automatic contouring in IGBT was proven safe and time-saving. In the latter article, Christian Scherf *et al.* (Frankfurt, Germany) investigated the effects of iodinated contrast agents on HU-based dose calculation and dose delivered in HDR ¹⁹²Ir BT. The application of HU-based TG-186 formalism in the presence of high-Z contrast agent bulks overestimated electron densities. Thus, HU-based dose calculations resulted in a higher delivered dose than the expected treatment planning system.

The third Japanese submission, the one from Osaka, presented the effect of a lead block on alveolar bone protection in image-guided HDR interstitial BT for tongue cancer. The authors used model-based dose calculation algorithms to correct for inhomogeneity successfully.

Ending the list of articles, look at the hard copy cover. It is an invitation to an outstanding visual atlas of radiological and clinical findings in uveal melanoma treated by plaque BT. The pictorial essay and literature review on response assessment are authored by Bruno Fionda *et al.* (Rome, Italy).

Yours sincerely,

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