

Dear Friends,

Our Journal steps into 2024 with a fresh portion of brachytherapy data on prostate, breast, head and neck cancers, gynecological malignancies, surface techniques, and augmented reality implementation. The JCB 1/2024 issue (January/February) contains ten intriguing manuscripts: six clinical papers, one physics contribution, one review, and two educational articles.

This time, I will start from the end, our Educational Corner. Marta Gimeno-Morales *et al.* (Spain) submitted an outstanding article summarizing available data regarding two BT approaches for conservatively treated breast cancer. The authors discussed primary APBI, local boost, and salvage re-irradiation after a second conservative treatment (APBrI). They focused on the pros and cons of intra-operative or post-operative approaches, and presented their different technical, logistic, and clinical aspects. Their work can serve as a valuable resource to guide breast teams in optimal technique selection, with hospital abilities, multidisciplinary cooperation, and patient logistics considered. I also recommend reviewing previously published communications on our pages [1-5].

The second educational article analyzes BT used in gynecological settings at a tertiary care hospital in India. Rasla Parween *et al.* highlighted the advantages of image-guided interstitial BT and underlined the associated challenges. They paid particular attention to the importance of overall treatment time, which can be assured by prioritizing and streamlining the referral process for BT performing centers. There are related reports on this subject [6, 7].

The third article from the end is a worth noticing narrative review on augmented reality (AR) that can be used in brachytherapy. Martina Ferioli *et al.* (Italy) summarized existing evidence, discussed key findings, limitations, and quality of research, and tried to outline future directions. Searched studies have suggested AR feasibility and potential benefits in education, training, intra-operative guidance, and treatment planning workflow.

This issue's first three clinical papers relate to prostate cancer. Based on their case series, Horatio Thomas *et al.* (USA) assessed HDR-BT safety in patients suffering from coexisting inflammatory bowel disease. They claim minimal acute and late GI and GU toxicities related to BT. In the second article, researchers from Australia investigated long-term LDR-BT outcomes in patients younger than 60 years, supporting some existing data on permanent implants as a practical treatment choice in younger men. In the third clinical paper, Takayuki Sakurai *et al.* (Japan) conveyed an importance-performance analysis to identify lower urinary tract symptoms (LUTS) that should be prioritized to improve patients' urinary quality of life (QoL).

Sophie Renard *et al.* (France) shared their experience in adjuvant PDR-BT for oral cavity and oropharynx carcinomas. Based on 66 patients' efficacy and toxicity data, they stated that PDR-BT is safe and effective when indications are well-defined.

The last article I wish to highlight is a physics' contribution submitted by Micheal Lavelle *et al.* (USA), in which the feasibility and clinical implementation of MRI-guided surface BT were investigated. The authors achieved sub-millimeter accuracy of dwell positions, clinically acceptable digitization, and accurate treatment plans in a phantom setting. This novel approach may lead to individualized prescriptions for potentially improved patient outcomes.

Yours sincerely,



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

References

- Morales MG, Martinez-Regueira F, Rodriguez-Spiteri N *et al.* Minimally invasive tumor bed implant (MITBI) and peri-operative high-dose-rate brachytherapy (PHDRBT) for accelerated minimal breast irradiation (AMBI) or anticipated boost (A-PHDRBT-boost) in breast-conserving surgery for ductal carcinoma in situ. *J Contemp Brachytherapy* 2020; 12: 521-532.
- Vavassori A, Riva G, Cavallo I *et al.* High-dose-rate Brachytherapy as Adjuvant Local rEirradiation for Salvage Treatment of Recurrent breast cancer (BALESTRA): a retrospective mono-institutional study. *J Contemp Brachytherapy* 2020; 12: 207-215.
- Major T, Fröhlich G, Mészáros N *et al.* Does inverse planning improve plan quality in interstitial high-dose-rate breast brachytherapy? *J Contemp Brachytherapy* 2020; 12: 166-174.
- Cozzi S, Jamal D, Slocker A *et al.* Second breast-conserving therapy with interstitial brachytherapy (APBI) as a salvage treatment in ipsilateral breast tumor recurrence: a retrospective study of 40 patients. *J Contemp Brachytherapy* 2019; 11: 101-107.
- Cozzi S, Laplana M, Najjari D *et al.* Advantages of intraoperative implant for interstitial brachytherapy for accelerated partial breast irradiation either frail patients with early-stage disease or in locally recurrent breast cancer. *J Contemp Brachytherapy* 2018; 10: 97-104.
- Chatterjee A, Grover S, Gurram L *et al.* Patterns of cervical cancer brachytherapy in India: results of an online survey supported by the Indian Brachytherapy Society. *J Contemp Brachytherapy* 2019; 11: 527-533.
- Mahantshetty U, Gudi S, Singh R *et al.* Indian Brachytherapy Society Guidelines for radiotherapeutic management of cervical cancer with special emphasis on high-dose-rate brachytherapy. *J Contemp Brachytherapy* 2019; 11: 293-306.