

Dear Readers,

At the beginning, I want to thank all who participated onsite or online in RART 3rd Edition (Recurrence After Radical Treatment, the Polish Brachytherapy Society congress endorsed by ESTRO), which took place on March, 24-25 in Katowice, Poland. Again, the meeting formula based on lectures, and continued with fruitful panel discussions, appeared to be very appealing and exciting for the disputants and the audience. The well-known foreign experts' presence was well-recognized and appreciated. The problem of recurrent cancerous diseases after initial radiation increases with the number of patients treated and aging, and interventional radiotherapy (brachytherapy) has some attractive options for salvage. I think RART's next year edition would be justified.

The JCB 2/2023 issue contains eleven diverse manuscripts, including seven clinical papers, two physics contributions, a technical note, and a case report.

The current issue opens with a unique manuscript by Guillaume Tremblay *et al.* (France), whose objective was to compare BT's oncologic and functional results using Quadrella index for patients aged 60 or less versus older. The innovative index was defined in 2014 for prostate cancer BT associating four most important parameters, such as BRFS, erectile function, urinary toxicity, and rectal disorders. The article is definitely to be referred to. The second clinical paper by Neil Wallace *et al.* (Ireland) is a single-institution, retrospective review to validate the bladder neck as an important OAR at prostate seed BT. The authors noticed lower urinary toxicity rates for patients treated after they commenced routine intra-operative contouring of the bladder neck, with no clear relationship between dosimetry and reported toxicity. The following paper from Poland (Poznań branch of the Polish Brachytherapy Society) discusses the potential of iodine-based LDR-BT in treating local prostate cancer recurrences after primary HDR monotherapy. With caution, the concept is characterized by acceptable toxicity and may result in satisfactory local disease control. Going to the following report, I must admit that I admire the group from The Netherlands and their work on the bladder preservation. This paper presents outstanding cross-sectional study results considering patients' excellent quality of life treated with a BT-based approach for muscle-invasive bladder cancer. It is something to be followed. The fifth clinical manuscript was submitted by authors from Iran. They assessed long-term complication and response rates after HDR endorectal BT boost in neoadjuvant chemoradiotherapy (nCRT) of locally advanced rectal cancer. As concluded, the regimen was well-tolerated, and neoadjuvant HDR-BT as a boost can achieve better tumor downstaging without significant toxicity. Listed sixth, the investigators' group from China, focused on the meaning of uniform preparation for cervical cancer BT boost procedure consisting of 5 separate fractions. Such an approach can lead to achieving controlled and optimal bladder (≤ 70 ccs) and rectum (≈ 40 ccs) volumes, and this relates to the doses in the bladder, rectum, and sigmoid colon. The last clinical report by Mranalini Verma *et al.* (India) is an honest audit results presentation concerning uterine perforation and its effect on outcomes in an academic research medical center, where not every procedure can be done by well-experienced specialists.

Out of two physics contributions, the first comes from China. The authors attempted to use deep learning for automatic interstitial needle reconstruction based on CT images for post-operative cervical cancer BT. This reconstruction method can precisely localize the interstitial needles three-dimensionally, and can improve the consistency of treatment planning. In the second physical manuscript, an international team from Ethiopia, Iran, and Iraq, carried out a dosimetric comparison between the microSelectron ¹⁹²Ir and the Flexi ⁶⁰Co sources for HDR-BT using Geant4 Monte Carlo Code.

This time I present one inspiring technical note on intra-operative interstitial BT by a novel infra-zygomatic approach for partially resectable head and neck cancers located near the skull base. Sidanna R. Palled *et al.* (India) enriched their submission with very suggestive photos.

The last paper is a case report by Opbroek Thirza *et al.* (The Netherlands), describing the promising use of a bio-degradable rectal balloon implant in combination with a focal salvage HDR in a patient with a recurrent disease and significant initial grade 3 rectal toxicity after previous LDR-BT. This novel concept can be seen on the cover of the current JCB issue.



I wish you a pleasant reading,
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Editor-in-Chief,
Journal of Contemporary Brachytherapy