

Addressing contemporary challenges and advancing research in radiology and radiotherapy: Volume 12 Issue 2

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Welcome to the second issue of Volume 12 of the International Journal of Radiology and Radiation Therapy. As we navigate the complex and ever-evolving landscape of modern medicine, the disciplines of radiology and radiotherapy stand at a critical juncture, simultaneously empowered by unprecedented technological advancements and challenged by the imperative for precision, efficiency, and equitable access in healthcare delivery. This issue arrives at a time when our fields are grappling with significant questions: How do we effectively integrate artificial intelligence into clinical workflows while maintaining diagnostic accuracy and ethical standards? How can we leverage advanced imaging techniques to personalize cancer treatment and predict response? What are the most impactful strategies for optimizing radiation dose delivery to maximize tumor control while minimizing toxicity? Furthermore, how do we ensure that these cutting-edge advancements are accessible globally, addressing disparities in healthcare resources?

Volume 12, Issue 2 of the International Journal of Radiology and Radiation Therapy directly confronts these challenges by presenting a collection of articles that push the boundaries of current knowledge and practice. The contributions within this issue span a diverse range of topics, reflecting the multifaceted nature of our disciplines and the breadth of research being conducted globally.

Addressing the challenge of personalized treatment and understanding disease mechanisms, this issue features a research article by Mirtukhtaeva et al. titled "About effectiveness of treatment by somatostatin analogues of patients with non-functional pituitary adenomas on the base of study of expression somatostatin receptor isoforms". This work exemplifies how investigating biological markers, such as the expression of somatostatin receptor isoforms, can inform therapeutic strategies for specific conditions like non-functional pituitary adenomas, moving towards more targeted and personalized patient management.

In the realm of diagnostic imaging and the diverse applications of radiology, this issue includes a compelling case series by Glavan Cristi titled "Imaging findings and monitoring of a rare case of congenital intrahepatic bile duct ectasia (Caroli's disease) in 2 cats from the same litter". This contribution highlights the crucial role of advanced imaging techniques in the diagnosis and longitudinal monitoring of rare conditions, extending the application of radiological expertise to veterinary medicine and underscoring the diagnostic challenges inherent in complex cases.

Radiotherapy techniques and outcomes, while not directly represented by a specific article in this particular selection, remain

a core focus of the journal, and future issues will continue to feature advancements in dose optimization, treatment planning, and toxicity management.

This issue also includes a research article by Sanella Rosa Leyva Argibay et al. titled "Level of knowledge of parents and/or guardians about the importance of the first permanent molar". While seemingly distinct from the core technical aspects of medical radiology and radiotherapy, this paper touches upon foundational aspects of health knowledge and preventative care, areas that can ultimately intersect with diagnostic imaging in broader healthcare contexts.

Collectively, the articles in Volume 12, Issue 2 offer valuable insights and data points that contribute to navigating the challenges facing radiology and radiotherapy. They demonstrate the ongoing commitment of researchers and clinicians worldwide to enhance diagnostic accuracy, improve treatment efficacy, reduce side effects, and explore innovative solutions for the benefit of patients, spanning from personalized treatment approaches to the critical role of imaging in rare diagnoses and the broader landscape of health awareness.

As Editor-in-Chief, I am deeply appreciative of the dedication of our authors for their valuable contributions, the rigorous work of our reviewers in maintaining the high standards of the journal, and the continued support of our readers. It is through the dissemination of such high-quality research that we can collectively advance our fields and improve global health outcomes.

We hope that the articles in this issue will stimulate further research, inform clinical practice, and inspire continued innovation in radiology and radiotherapy.

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Conflict of interest

There was no conflict of interest