More than meets the eye: Radiomics in radiation oncology

Radiomics, the theme of this month’s issue, is poised to significantly improve informed decision-making in radiation therapy delivery—an exciting future that is swiftly becoming reality in everyday practice. Even more promising is the integration of radiomics with data such as molecular, metabolic and microenvironmental tumor analytics. Together this information can fuel precision diagnostics and theranostics on an individualized level, as described in the enlightening review article, Genomics and radiomics: Tools to see the unseen to personalize radiation therapy. A second review delineates the potential of radiomics in lung cancer treatment. This insightful overview, An emergent role for radiomic decision support in lung cancer, explains how radiomic models offer immense possibility for personalized lung cancer diagnosis, risk profiling, and treatment by assimilating image characteristics undetectable to the human eye. We hope you find these articles, both of which offer free SA-CME credits, helpful in understanding and embracing personalized medicine in radiation oncology.

Rounding out the theme is the Technology Trends feature, The intersection of radiomics, artificial intelligence and radiation therapy. Here, leading experts examine the need for reproducibility, standardization, safeguards, and collaboration across disciplines and institutions to optimize radiomics.

We are also pleased to present the thoughtful Global Perspectives column on cultural complexities and their effects on radiation medicine in Beirut, as recounted by an ARRO Global Health Scholar. Global health challenges and solutions are further addressed in the case report, Use of an OP Care smartphone application to improve care of gynecology cancer patients in a low-resource setting. The authors describe the feasibility and efficacy of mobile technology to enhance patient record storage, treatment monitoring, appointment scheduling and tracking, and more in a clinic in Botswana, Africa. A second case report describes a patient with recurrent, poorly differentiated cutaneous squamous cell carcinoma metastatic to the right orbit and his complete response to pembrolizumab immunotherapy. A third case report discusses the unusual event of strip alopecia in two patients who received high-dose, VMAT-based stereotactic radiosurgery.

Lastly, we are proud to feature the Resident Voice editorial on the important topic of leadership development. As the author urges, we need to squelch the belief that leadership training is only for those who want to head a committee or department, and usher in awareness, tools and training for all radiation oncology residents during this formative point in their career. My strong opinion is that every physician should develop their leadership acumen given our influence with patients and society.

As 2019 ends and 2020 begins, we extend our deepest gratitude to you for your support over the last 8 years. We are proud to have greatly expanded our editorial offerings, peer review panel, advisory board, SA-CME articles, followers, and collaborators since our inception, and look forward to a new year of continued growth, service, and inspiration.