



Looking Ahead to 2022 for the *Korean Journal of Radiology*

Seong Ho Park, Editor-in-Chief

Department of Radiology and Research Institute of Radiology, University of Ulsan College of Medicine, Asan Medical Center, Seoul, Korea

In this editorial, I will briefly review some of the activities of the *Korean Journal of Radiology (KJR)* in 2021 and explain the changes planned in 2022.

In 2021, the world continued to suffer from the coronavirus disease-2019 (COVID-19). However, the massive impact of COVID-19 on scientific publications witnessed by us in 2020 [1,2] seems to have largely disappeared by 2021 in the field of radiology. *KJR* received a much smaller number of manuscripts on COVID-19 in 2021 than in 2020. This abrupt change is different from that experienced by general medical journals. For example, the majority of the articles published in the *Journal of the American Medical Association* in 2021 were still related to COVID-19. The rapid shrinkage of research studies on COVID-19 in radiology was because although radiology is a discipline mainly focused on diagnosis, the approach in dealing with the pandemic has shifted from diagnosis to vaccination and treatment/patient management in 2021. The *KJR* published eight articles related to COVID-19 in 2021 [3-9]. This number was much lower than that in 2020 and only two of them concerned the diagnosis of lung disease (commentaries on articles published in 2020) [8,9]. Other articles involved vaccination-associated lymphadenopathy [3,4], a meta-analysis of related neuroimaging findings [5], and modeling for patient management [6,7]. These topics reflect the phase shift in dealing with the pandemic. Notably, with the population-based large-scale vaccination campaign, COVID-19 vaccine-related lymphadenopathy that mimics malignant lymphadenopathy has become an issue that radiologists should be aware of [3,4].

As the manuscript submission and publication returned to the usual flow, artificial intelligence (AI) was a dominant topic addressed by the *KJR* in 2021. External validation/testing is critical for research studies involving AI [10,11]. *KJR* pays close attention to external validation/testing while reviewing manuscripts, as demonstrated by some recent articles [7,12-14]. One particular issue that is garnering attention with respect to the introduction of AI in radiology is "opportunistic" automated body composition analyses using imaging performed for other targeted purposes such as quantitative measurements of bone mineral density, visceral and subcutaneous fat, skeletal muscle, liver fat, coronary vascular calcification, and organ size [12,15-19]. The labor-intensive nature of manual (or even semi-automated) body composition measurements has largely prevented their translation from the research realm to routine clinical practice or large-scale population healthcare [15]. However, the emergence of automated AI-based approaches has paved the way for both efficient prospective clinical reporting and large-scale studies [15]. The association between skeletal muscle mass and patient outcomes is currently an area of active research [20-22]. The *KJR* is interested in receiving and publishing research studies that broadly address how the use of various body composition measurements, which were previously neglected in image interpretation, may change the radiology practice in the future.

There will be a few notable changes in the *KJR* in 2022. Several new article categories have been added, which include

Received: November 5, 2021 **Accepted:** November 5, 2021

Corresponding author: Seong Ho Park, MD, PhD, Department of Radiology and Research Institute of Radiology, University of Ulsan College of Medicine, Asan Medical Center, 88 Olympic-ro 43-gil, Songpa-gu, Seoul 05505, Korea.

• E-mail: parksh.radiology@gmail.com

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Focus, various brief **Editorial** pieces, and **Recommendation and Guideline**. **Focus** includes articles that provide a timely summary and discussion on a focused issue. It is expected to be more concise (≤ 2000 words) and may contain slightly more opinion-based information than typical scholarly review articles. The *KJR* has been publishing **Editorial** articles in a limited scope to explain the policies and views of the journal and editors. We have now expanded it to include various brief pieces including the perspectives and opinions of an individual, a group, or an organization (not necessarily those of the journal); research highlights; commentaries on articles published in the journal; interviews; and summaries of symposia or conferences. The *KJR*'s new attention to these brief articles is in consideration of a recent trend in scientific publications. The primary purpose of these short articles is to help readers identify and digest critical information in a timely manner, filtering/summarizing the vast amount of new information continuously created. The brief pieces are expected to be particularly useful in addressing rapidly evolving topics. Furthermore, these brief pieces may be more compatible with the era of mobile networks. *KJR* has already published several such brief articles in 2021 [15,23-25] including a few that were published in a slightly different interim format and category [23,24]. These articles address a singular topic rather than covering a broad topic. The examples include the proposal of a new goal in ablation therapy for benign thyroid nodules [23], the importance of specifying magnetic resonance imaging parameters for a high-resolution T2-weighted scan of rectal cancer [24], six mistakes to avoid for better reporting of survival analysis in imaging research [25], and a perspective on how automated computed tomography-based body composition analysis enabled by the current AI/machine-learning technology might influence routine radiology practice [15]. The *KJR* will publish more of these brief pieces in 2022. The **Recommendation and Guideline** category aims to publish documents that provide evidence-based recommendations/guidance for clinical practice, which are created or endorsed by academic organizations or groups [26]. *KJR* previously published these documents as **Review**. We admit that it was not an entirely adequate categorization. The articles published under the category of **Recommendation and Guideline** are expected to have methodological rigor and transparency including a thorough systematic literature review and specification of the consensus process [26]. Documents that represent academic organizations or groups, but do not need or do not sufficiently follow the methodology for developing practice guidelines can be published more appropriately under the **Editorial** or **Focus** categories [27,28].

Another change in 2022 will be the reduction in the time allotted to peer reviewers for reviewing the manuscript. The peer review used to be performed within 20 days after a reviewer's acceptance of our invitation. This period will be shortened to 14 days. The editors understand that this change might cause some difficulties for some of the reviewers. Nevertheless, many other radiology journals have shortened their review duration to 14 days or even shorter. With the increasing speed and amount of scientific information delivery enabled by continuously improving information technology and networking, the need for rapid peer review is growing. Therefore, the editors of the *KJR* believe that reducing the review duration is the right move to serve the submitting authors with greater efficiency in this changing environment. The editors appreciate the efforts and contributions of the reviewers.

Finally, I am pleased to introduce a new section editor for the genitourinary section, as well as the newly appointed editorial board members for 2022–2026.



Dr. Sung Il Hwang, a new section editor for the genitourinary section, graduated from Seoul National University School of Medicine and earned his MD degree in 1996. He completed residency training in diagnostic radiology at the Seoul National University Hospital (1997–2000) and received a PhD at the same university. He had one each year of fellowship training in the genitourinary section at Seoul National University Hospital and Seoul National University Bundang Hospital. After that, he has worked as a professor of radiology at Seoul National University Bundang Hospital since 2007. Dr. Hwang has written more than 80 scientific papers in international journals and served as an active reviewer for several journals including *KJR*, *Ultrasonography*, *Journal of Urology*, etc. His primary research areas include imaging and intervention of the prostate, AI, and gynecologic imaging.

The newly appointed editorial board members can be found in the journal's masthead (<https://www.kjronline.org/index.php?body=EditorialBoard>).

Conflicts of Interest

The author has no potential conflicts of interest to disclose.

ORCID iD

Seong Ho Park

<https://orcid.org/0000-0002-1257-8315>

REFERENCES

1. Bluemke DA. Editor's note: 2020-a year like no other for radiology. *Radiology* 2021;298:243-244
2. Park SH. What's new in the Korean Journal of Radiology in 2021. *Korean J Radiol* 2021;22:1-4
3. Lane DL, Neelapu SS, Xu G, Weaver O. COVID-19 vaccine-related axillary and cervical lymphadenopathy in patients with current or prior breast cancer and other malignancies: cross-sectional imaging findings on MRI, CT, and PET-CT. *Korean J Radiol* 2021;22:1938-1945
4. Ashoor A, Shephard J, Lissidini G, Nicosia L. Axillary adenopathy in patients with recent Covid-19 vaccination: a new diagnostic dilemma. *Korean J Radiol* 2021;22:2124-2126
5. Kim PH, Kim M, Suh CH, Chung SR, Park JE, Kim SC, et al. Neuroimaging findings in patients with COVID-19: a systematic review and meta-analysis. *Korean J Radiol* 2021;22:1875-1885
6. Purkayastha S, Xiao Y, Jiao Z, Thepumnoesuk R, Halsey K, Wu J, et al. Machine learning-based prediction of COVID-19 severity and progression to critical illness using CT imaging and clinical data. *Korean J Radiol* 2021;22:1213-1224
7. Weikert T, Rapaka S, Grbic S, Re T, Chaganti S, Winkel DJ, et al. Prediction of patient management in COVID-19 using deep learning-based fully automated extraction of cardiothoracic CT metrics and laboratory findings. *Korean J Radiol* 2021;22:994-1004
8. Marchiori E, Penha D, Nobre LF, Hochegger B, Zanetti G. Differences and similarities between the double halo sign, the chest CT target sign and the reversed halo sign in patients with COVID-19 pneumonia. *Korean J Radiol* 2021;22:672-676
9. Velásquez-Rimachi V, Chavez-Malpartida SS, Velasquez-Fernandez R, Campos-Ramirez L. Chest X-ray for follow-up of hospitalized COVID-19 patients in settings with limited access to computed tomography. *Korean J Radiol* 2021;22:864-866
10. Bluemke DA, Moy L, Bredella MA, Ertl-Wagner BB, Fowler KJ, Goh VJ, et al. Assessing radiology research on artificial intelligence: a brief guide for authors, reviewers, and readers-from the radiology editorial board. *Radiology* 2020;294:487-489
11. Park SH, Choi J, Byeon JS. Key principles of clinical validation, device approval, and insurance coverage decisions of artificial intelligence. *Korean J Radiol* 2021;22:442-453
12. Park HJ, Shin Y, Park J, Kim H, Lee IS, Seo DW, et al. Development and validation of a deep learning system for segmentation of abdominal muscle and fat on computed tomography. *Korean J Radiol* 2020;21:88-100
13. Lee KC, Lee KH, Kang CH, Ahn KS, Chung LY, Lee JJ, et al. Clinical validation of a deep learning-based hybrid (Greulich-Pyle and modified Tanner-Whitehouse) method for bone age assessment. *Korean J Radiol* 2021;22:2017-2025
14. Yoo SJ, Yoon SH, Lee JH, Kim KH, Choi HI, Park SJ, et al. Automated lung segmentation on chest computed tomography images with extensive lung parenchymal abnormalities using a deep neural network. *Korean J Radiol* 2021;22:476-488
15. Pickhardt PJ, Summers RM, Garrett JW. Automated CT-based body composition analysis: a golden opportunity. *Korean J Radiol* 2021;22:1934-1937
16. Ahn Y, Yoon JS, Lee SS, Suk HI, Son JH, Sung YS, et al. Deep learning algorithm for automated segmentation and volume measurement of the liver and spleen using portal venous phase computed tomography images. *Korean J Radiol* 2020;21:987-997
17. Kim DW, Kim KW, Ko Y, Park T, Lee J, Lee JB, et al. Effects of contrast phases on automated measurements of muscle quantity and quality using CT. *Korean J Radiol* 2021;22:1909-1917
18. Kwon JH, Lee SS, Yoon JS, Suk HI, Sung YS, Kim HS, et al. Liver-to-spleen volume ratio automatically measured on CT predicts decompensation in patients with B viral compensated cirrhosis. *Korean J Radiol* 2021;22:1985-1995
19. Lee JG, Kim H, Kang H, Koo HJ, Kang JW, Kim YH, et al. Fully automatic coronary calcium score software empowered by artificial intelligence technology: validation study using three CT cohorts. *Korean J Radiol* 2021;22:1764-1776
20. Lee K, Shin Y, Huh J, Sung YS, Lee IS, Yoon KH, et al. Recent issues on body composition imaging for sarcopenia evaluation. *Korean J Radiol* 2019;20:205-217
21. Lee J, Jeong WK, Kim JH, Kim JM, Kim TY, Choi GS, et al. Serial observations of muscle and fat mass as prognostic factors for deceased donor liver transplantation. *Korean J Radiol* 2021;22:189-197
22. Cho YH, Do KH, Chae EJ, Choi SH, Jo KW, Lee SO, et al. Association of chest CT-based quantitative measures of muscle and fat with post-lung transplant survival and morbidity: a single institutional retrospective cohort study in Korean population. *Korean J Radiol* 2019;20:522-530

23. Sim JS, Baek JH. Unresolved clinical issues in thermal ablation of benign thyroid nodules: regrowth at long-term follow-up. *Korean J Radiol* 2021;22:1436-1440
24. Gormly KL. High-resolution T2-weighted MRI to evaluate rectal cancer: why variations matter. *Korean J Radiol* 2021;22:1475-1480
25. Park SH, Han K, Park SY. Mistakes to avoid for accurate and transparent reporting of survival analysis in imaging research. *Korean J Radiol* 2021;22:1587-1593
26. Park SH. Introducing "recommendation and guideline" of the Korean Journal of Radiology. *Korean J Radiol* 2021;22:1929-1933
27. Hwang EJ, Goo JM, Yoon SH, Beck KS, Seo JB, Choi BW, et al. Use of artificial intelligence-based software as medical devices for chest radiography: a position paper from the Korean Society of Thoracic Radiology. *Korean J Radiol* 2021;22:1743-1748
28. Park BK, Shen SH, Fujimori M, Wang Y. Thermal ablation for renal cell carcinoma: expert consensus from the Asian conference on tumor ablation. *Korean J Radiol* 2021;22:1490-1496