

# Impact of COVID-19 pandemic on radiology literature

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## Dear Editor,

Since coronavirus disease 2019 (COVID-19) pandemic has emerged and spread all around the world, healthcare systems and medical specialties adapted to many changes. Radiology plays a key role in the management of this pandemic as imaging may be a potential diagnostic test where reference standard RT-PCR tests are scarce or turnaround times are lengthy. This led to a requirement for familiarization of radiologists to imaging manifestations of the disease and radiologic community focused on to disseminate knowledge about the imaging findings of the disease as fast as possible. Therefore, a great number of articles have been published in radiology journals and trends in radiology literature have changed.

An analysis of top 50 cited COVID-19 articles (limited to radiology, nuclear medicine, medical imaging) based on data extracted from Web of Science database on April 8, 2021, revealed that there were 1437 citations for the most cited article and 95 citations for the least cited article. Five articles obtained more than 500 citations and the average number of citations for the top 50 articles was  $269.3 \pm 228.9$ . A study which analyzed the top 100 most cited articles in head and neck radiology reported that although the range of citations per year varies between 3.5 and 197.5, the median value of citations per year for the included articles was only 10.6.<sup>1</sup> The fact that the top 50 COVID-19 articles published in 2020 obtained at least 95 citations suggests that many researchers in the field of radiology intensively focused on COVID-19.

The top 50 articles originated from eight countries only. The majority of the articles originated from China (54%) followed by the USA (22%). In 2013, Brinjikji et al.<sup>2</sup> analyzed the most cited 100 articles in the imaging literature and reported that the USA and the UK were the country of origin in 46% and 25% of the articles, respectively. In their study, no study originated from China made it to top 100. As the COVID-19 pandemic has emerged from China, the first reports regarding the imaging manifestations of the disease were published by Chinese authors. Since the disease spread all around the world, scientific community exhibited great efforts to report their findings and many authors cited the publications of Chinese authors. As a consequence, contrary to historical trends in imaging literature, this pandemic has potential to lead more balanced citation distribution between Eastern and Western radiology communities. Furthermore, Brinjikji et al.<sup>2</sup> reported that magnetic resonance imaging constitutes the topic of 69% of the top 100 most cited articles and computed tomography (CT) is the subject of only 8% of the articles. COVID-19 mainly affects the respiratory system and thereby as a backbone of thoracic imaging CT is the foremost priority in this pandemic. Therefore, it can be foreseen that CT is going to take precedence in that list.

These analyses revealed that besides the changes in many aspects of life, COVID-19 pandemic will also have major impacts on historical trends in radiology literature.

## Conflict of interest disclosure

The authors declared no conflicts of interest.

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