

Brief Communication  
Editing, Writing &  
Publishing



# Analysis of PubMed and KoreaMed Indexed Korean Publications on COVID-19

Jong-Min Kim ,<sup>1</sup> Jin-Hong Yoo ,<sup>2</sup> Hae Kyung Cho ,<sup>3</sup> and Sung-Tae Hong <sup>4</sup>

<sup>1</sup>Department of Neurology, Seoul National University College of Medicine & Associate Editor, Journal of Korean Medical Science, Seoul, Korea

<sup>2</sup>Division of Infectious Diseases, Department of Internal Medicine, College of Medicine, The Catholic University of Korea & Associate Editor, Journal of Korean Medical Science, Seoul, Korea

<sup>3</sup>Editorial Researcher, Journal of Korean Medical Science, Seoul, Korea

<sup>4</sup>Department of Tropical Medicine and Parasitology, Seoul National University College of Medicine & Editor-in-Chief, Journal of Korean Medical Science, Seoul, Korea

OPEN ACCESS

Received: Dec 11, 2021

Accepted: Dec 14, 2021

Address for Correspondence:

Sung-Tae Hong, MD, PhD

Department of Tropical Medicine and Parasitology, Seoul National University College of Medicine, 103 Daehak-ro Jongno-gu, Seoul 03080, Korea.

E-mail: jkms@kams.or.kr

© 2021 The Korean Academy of Medical Sciences.

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.

ORCID iDs

Jong-Min Kim

<https://orcid.org/0000-0001-5723-3997>

Jin-Hong Yoo

<https://orcid.org/0000-0003-2611-3399>

Hae Kyung Cho

<https://orcid.org/0000-0001-6738-5863>

Sung-Tae Hong

<https://orcid.org/0000-0002-0300-1944>

Disclosure

The authors have no potential conflicts of interest to disclose.

## ABSTRACT

During the coronavirus disease 2019 (COVID-19) pandemic, publications on the disease have exploded globally. The present study analyzed PubMed and KoreaMed indexed COVID-19 publications by Korean researchers from January 1, 2020 to August 19, 2021. A total of 83,549 COVID-19 articles were recorded in PubMed and 1,875 of these were published by Korean authors in 673 journals (67 Korean and 606 overseas journals). The KoreaMed platform covered 766 articles on COVID-19, including 612 by Korean authors. Among the *Journal of Korean Medical Science (JKMS)* articles on COVID-19, PubMed covered 176 and KoreaMed 141 documents. Korean researchers contributed to 2.2% of global publications on COVID-19 in PubMed. The *JKMS* has published most articles on COVID-19 in Korea.

**Keywords:** Bibliographies as Topic; COVID-19; Periodicals as Topic; Publications; Korean Researcher; *Journal of Korean Medical Science*

On 3 December 2021, 718,142 new cases of the coronavirus disease 2019 (COVID-19) were reported just in one day globally, reaching 265 million cumulative cases and 5.24 million total deaths.<sup>1</sup> In Korea, the Korea Disease Control and Prevention Agency (KDCA) reported 5,817 new daily cases and 523,088 cumulative ones on December 13, 2021. Daily deaths were 80 and cumulative deaths were 4,293 with 0.82% mortality rate due to COVID-19.<sup>2</sup> The KDCA report noted 114 confirmed cases with the omicron variant in Korea. The fact that COVID-19 cases are increasing though the vaccinated population is over 80% upsets the Government officials and health professionals in Korea. Most European countries and the U.S. are facing the same paradoxical problem in December 2021. Munro et al.<sup>3</sup> compared anti-severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) spike IgG antibodies, pseudovirus neutralizing antibodies, and cellular responses of spot forming cells after the third shot for healthy adults with 2 doses of vaccination with ChAdOx-nCov19 (AstraZeneca) or BNT162b2 (Pfizer-BioNTech) vaccines in the U.K. The clinical trial data demonstrated that both humoral and cellular immune responses were reduced 70–84 days after the second dose but the immune responses were significantly increased by the third dose. The trial

**Author Contributions**

Conceptualization: Kim JM, Yoo JH, Cho HK, Hong ST. Data curation: Cho HK. Formal analysis: Kim JM, Cho HK. Investigation: Kim JM, Cho HK, Yoo JH, Hong ST. Writing original draft: Hong ST. Writing review and editing: Kim JM, Yoo JH, Cho HK, Hong ST.

data demonstrated low level of protective immunity to delta variant infection after the second vaccination, shedding light on the breakthrough infections in countries with high vaccination rate.<sup>3</sup>

Many Korean experts have explored and publicized clinical and epidemiological characteristics of COVID-19. Although it is difficult to estimate the global publication record on COVID-19, we performed searches of related articles on PubMed (<https://pubmed.ncbi.nlm.nih.gov/>) and KoreaMed (<https://www.koreamed.org/>). We counted COVID-19 publications by Korean authors searchable on PubMed from January 1, 2020 to August 19, 2021 and KoreaMed from January 1, 2020 to July 29, 2021. The articles were searched by 4 keywords; COVID-19, coronavirus disease (or corona virus disease), SARS-CoV-2, and severe acute respiratory syndrome.

Since the report of the first COVID-19 patient in Korea in the *Journal of Korean Medical Science (JKMS)*,<sup>4</sup> a total of 230 articles had been published in the same journal by December 4, 2021: 9 reviews, 7 special articles, 106 original research articles, 40 brief communications, 21 case reports, 8 editorials, 23 opinion pieces, 1 image, 4 cartoons, and 11 letters.<sup>5</sup>

**Table 1** summarizes PubMed and KoreaMed recorded publications on COVID-19. A total of 83,549 publications on COVID-19 were searchable on PubMed, including 1,875 (2.2%) authored by Korean researchers. The 1,875 articles were published in 673 journals, 67 of which were based in Korea. During the covered period, 176 articles on COVID-19 originated from *JKMS* (0.21% of whole PubMed records and 9.4% of total Korean publications).

The KoreaMed platform indexed 766 articles on COVID-19 from 141 journals, with 612 authored by Koreans. In KoreaMed, 165 *JKMS* articles were recorded (**Table 1**). The authors' nationality and related document counts in KoreaMed are summarized in **Supplementary Table 1**.

The top 20 journals that published COVID-19 articles of Korean authors are listed in **Table 2**. The *JKMS* had published most COVID-19 articles covered by both platforms. The two platforms displayed differing records for same journals probably due to different time lags of each indexing system. The PubMed data indicated that more than 100 articles had been published by Korean authors monthly since March 2020 (**Fig. 1**).

Some researchers published their articles in the top-ranked medical journals; 5 publications in the *New England Journal of Medicine*, 5 *Lancet* and 21 *Lancet* sister journals, 2 *JAMA* and 5 *JAMA* Network journals, 6 *BMJ*, and 4 *BMJ Open*. Half of these publications were coauthored by foreign collaborators. These publications reflected top-quality contributions of Korean authors who take part in the global academic competition.

**Table 1.** Number of publications on COVID-19 recorded in PubMed and KoreaMed

Variables	PubMed	KoreaMed
Period of searched data	January 1, 2020–August 19, 2021	January 1, 2020–July 29, 2021
Total No. of publications on COVID-19	83,549	766
Total No. of publications by Korean authors	1,875	612
Total No. of published journals	673	141
No. of journals published in Korea	67	141
No. of publications in <i>JKMS</i>	176	165

Retrieved from August 25 to September to September 6, 2021.

COVID-19 = coronavirus disease 2019, *JKMS* = *Journal of Korean Medical Science*.

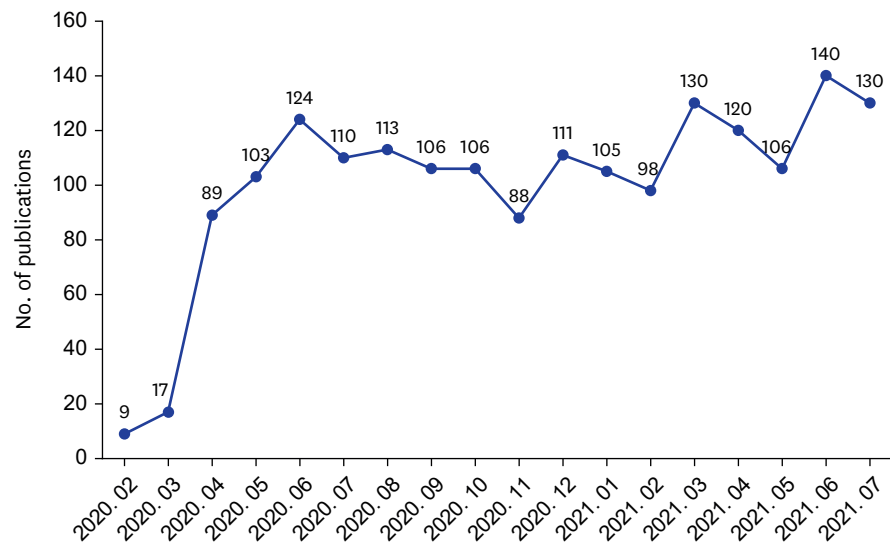


Fig. 1. Number of monthly publications on coronavirus disease 2019 by Korean authors.

The data of COVID-19 publications demonstrate just one aspect of research activities in Korea. Korean researchers had published 2.2% articles of the PubMed records from January 2020 to August 19, 2021. Along with the top-ranked general medical journals, the *JKMS* is the preferred target for Korean researchers with interest in COVID-19.

One of the main advantages of *JKMS* is its weekly publication schedule.<sup>6</sup> The *JKMS* issues are now published every Monday, enabling rapid dissemination of cutting-edge knowledge in medicine and public health. All COVID-19 submissions have been separately handled in line

Table 2. Top 20 journals by number of publications on COVID-19 by Korean authors

PubMed		KoreaMed	
Name of journals	No. of publications	Name of journals	No. of publications
<i>Journal of Korean Medical Science</i> <sup>a</sup>	176	<i>Journal of Korean Medical Science</i> <sup>a</sup>	165
<i>International Journal of Environmental Research and Public Health</i>	102	<i>Infection and Chemotherapy</i> <sup>a</sup>	41
<i>PLoS One</i>	37	<i>Osong Public Health Research Perspective</i> <sup>a</sup>	34
<i>International Journal of Infectious Disease</i>	36	<i>Epidemiology and Health</i> <sup>a</sup>	28
<i>Science Report</i>	33	<i>Clinical Experimental Pediatrics</i> <sup>a</sup>	22
<i>Infection and Chemotherapy</i> <sup>a</sup>	39	<i>Journal of Preventive Medicine and Public Health</i> <sup>a</sup>	22
<i>Korean Journal of Internal Medicine</i> <sup>a</sup>	27	<i>Korean Journal of Internal Medicine</i> <sup>a</sup>	21
<i>Journal of Clinical Medicine</i>	25	<i>Korean Journal of Radiology</i> <sup>a</sup>	21
<i>Journal of Medical Internet Research</i>	23	<i>Psychiatry Investigation</i> <sup>a</sup>	13
<i>Osong Public Health Research Perspective</i> <sup>a</sup>	20	<i>Korean Journal of Medical Education</i> <sup>a</sup>	12
<i>Diabetes and Metabolism Journal</i> <sup>a</sup>	19	<i>Journal of Korean Medical Association</i> <sup>a</sup>	11
<i>Healthcare (Basel)</i>	18	<i>Diabetes and Metabolism Journal</i> <sup>a</sup>	10
<i>Epidemiology and Health</i> <sup>a</sup>	17	<i>Asian Spine Journal</i> <sup>a</sup>	9
<i>Clinical Experimental Pediatrics</i> <sup>a</sup>	15	<i>Immune Network</i> <sup>a</sup>	9
<i>Annals of Translation Medicine</i>	14	<i>Neurospine</i> <sup>a</sup>	9
<i>Journal of Preventive Medicine and Public Health</i> <sup>a</sup>	13	<i>Acute Critical Care</i> <sup>a</sup>	8
<i>Vaccines (Basel)</i>	12	<i>Genomics Informatics</i> <sup>a</sup>	8
<i>Viruses</i>	12	<i>Korean Journal of Medicine</i> <sup>a</sup>	8
<i>Yonsei Medical Journal</i> <sup>a</sup>	12	<i>Tuberculosis and Respiratory Diseases</i> <sup>a</sup>	8
<i>Annals of Laboratory Medicine</i> <sup>a</sup>	11	<i>World Journal of Men's Health</i> <sup>a</sup>	8

COVID-19 = coronavirus disease 2019.

<sup>a</sup>Journals published or based in Korea.

with an urgently designed fast-track processing, editing, and publishing strategy. Such strategy coupled with advanced global visibility positions the *JKMS* among the best target journals amidst the ongoing COVID-19 pandemic. Notably, the *JKMS* is listed by the Directory of Open Access Journals (DOAJ) and promoted by its official Twitter channel, both contributing to the openness, citability, and societal impact. As an example, one article that reported early epidemiological characteristics of COVID-19 in Korea had been cited 251 times on Web of Science, the highest citation record for related *JKMS* articles (as of December 8, 2021).<sup>7</sup> There are also 6 related *JKMS* articles with more than 100 citations (**Supplementary Table 2**).<sup>4,8-14</sup>

The *JKMS* is distinguished as one of the most reputable general medical journals with membership in the International Committee of Medical Journal Editors (ICMJE). Articles covering medical aspects of COVID-19 perfectly fall within the scope of interests of the journal, contributing to the global evidence accumulation. The *JKMS* invites COVID-19 submissions from diverse medical fields such as internal medicine, public health, chemotherapy, surgery, laboratory medicine, epidemiology, immunology, pediatrics, psychiatry, and basic research.

In conclusion, Korean authors actively contribute to the global publication record on COVID-19. They publish more than 100 related articles monthly. The *JKMS* is the main target for Korean researchers who aim to publish their most impactful COVID-19 articles.

## ACKNOWLEDGMENTS

The authors thank Dr. Armen Yuri Gasparyan at Russells Hall Hospital, Dudley, U.K. for his language editing of the manuscript.

## SUPPLEMENTARY MATERIALS

### Supplementary Table 1

Number of COVID-19 publications recorded in KoreaMed by nationality of corresponding authors

[Click here to view](#)

### Supplementary Table 2

Number of citations of COVID-19 publications In *JKMS* by Web of Science

[Click here to view](#)

## REFERENCES

1. Coronavirus disease statistics. <https://www.google.com/search?q=coronavirus+stats+worldwide&newwindow>. Accessed December 4, 2021.
2. Korea Disease Control and Prevention Agency. Coronavirus (COVID-19), Republic of Korea. [http://ncov.mohw.go.kr/en/bdBoardList.do?brdId=16&brdGubun=161&dataGubun=&ncvContSeq=&contSeq=&board\\_id=&gubun=](http://ncov.mohw.go.kr/en/bdBoardList.do?brdId=16&brdGubun=161&dataGubun=&ncvContSeq=&contSeq=&board_id=&gubun=). Updated 2021. Accessed December 13, 2021.

3. Munro AP, Janani L, Cornelius V, Aley PK, Babbage G, Baxter D, et al. Safety and immunogenicity of seven COVID-19 vaccines as a third dose (booster) following two doses of ChAdOx1 nCov-19 or BNT162b2 in the UK (COV-BOOST): a blinded, multicentre, randomised, controlled, phase 2 trial. *Lancet*. Forthcoming 2021. DOI: 10.1016/S0140-6736(21)02717-3.  
[PUBMED](#) | [CROSSREF](#)
4. Kim JY, Choe PG, Oh Y, Oh KJ, Kim J, Park SJ, et al. The first case of 2019 novel coronavirus pneumonia imported into Korea from Wuhan, China: implication for infection prevention and control measures. *J Korean Med Sci* 2020;35(5):e61.  
[PUBMED](#) | [CROSSREF](#)
5. JKMS. Number of total publications. <https://jkms.org/index.php?main=COVID-19>. Updated 2021. Accessed December 4, 2021.
6. Hong ST. Fostering strategic changes in publishing: *Journal of Korean Medical Science* in 2018. *J Korean Med Sci* 2018;33(1):e8.  
[PUBMED](#) | [CROSSREF](#)
7. Korean Society of Infectious Diseases, Korean Society of Pediatric Infectious Diseases, Korean Society of Epidemiology, Korean Society for Antimicrobial Therapy, Korean Society for Healthcare-associated Infection Control and Prevention, Korea Centers for Disease Control and Prevention. Report on the epidemiological features of coronavirus disease 2019 (COVID-19) outbreak in the Republic of Korea from January 19 to March 2, 2020. *J Korean Med Sci* 2020;35(10):e112.  
[PUBMED](#) | [CROSSREF](#)
8. Lim J, Jeon S, Shin HY, Kim MJ, Seong YM, Lee WJ, et al. Case of the index patient who caused tertiary transmission of coronavirus disease 2019 in Korea: the application of lopinavir/ritonavir for the treatment of COVID-19 pneumonia monitored by quantitative RT-PCR. *J Korean Med Sci* 2020;35(6):e79.  
[PUBMED](#) | [CROSSREF](#)
9. Ahn JY, Sohn Y, Lee SH, Cho Y, Hyun JH, Baek YJ, et al. Use of convalescent plasma therapy in two COVID-19 patients with acute respiratory distress syndrome in Korea. *J Korean Med Sci* 2020;35(14):e149.  
[PUBMED](#) | [CROSSREF](#)
10. Lee Y, Min P, Lee S, Kim SW. Prevalence and duration of acute loss of smell or taste in COVID-19 patients. *J Korean Med Sci* 2020;35(18):e174.  
[PUBMED](#) | [CROSSREF](#)
11. Kim ES, Chin BS, Kang CK, Kim NJ, Kang YM, Choi JP, et al. Clinical course and outcomes of patients with severe acute respiratory syndrome coronavirus 2 infection: a preliminary report of the first 28 patients from the Korean cohort study on COVID-19. *J Korean Med Sci* 2020;35(13):e142.  
[PUBMED](#) | [CROSSREF](#)
12. Park WB, Kwon NJ, Choi SJ, Kang CK, Choe PG, Kim JY, et al. Virus isolation from the first patient with SARS-CoV-2 in Korea. *J Korean Med Sci* 2020;35(7):e84.  
[PUBMED](#) | [CROSSREF](#)
13. Kim JY, Ko JH, Kim Y, Kim YJ, Kim JM, Chung YS, et al. Viral load kinetics of SARS-CoV-2 infection in first two patients in Korea. *J Korean Med Sci* 2020;35(7):e86.  
[PUBMED](#) | [CROSSREF](#)
14. Yoon JG, Yoon J, Song JY, Yoon SY, Lim CS, Seong H, et al. Clinical significance of a high SARS-CoV-2 viral load in the saliva. *J Korean Med Sci* 2020;35(20):e195.  
[PUBMED](#) | [CROSSREF](#)