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. 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. 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. 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.

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), 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. 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 some 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 JKMS      | 176           | 165          |

Retrieved from August 25 to September to September 6, 2021.
COVID-19 = coronavirus disease 2019, JKMS = Journal of Korean Medical Science.
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. 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 with the guidelines set by the World Health Organization.

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

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

COVID-19 = coronavirus disease 2019.

*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). There are also 6 related JKMS articles with more than 100 citations (Supplementary Table 2).

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.

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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

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