



# The Influential Articles and Topics in the *Journal of Korean Neurosurgical Society* Publications between 2019 and 2020

Hee-Jin Yang,<sup>1</sup> Chul-Kee Park,<sup>2</sup> Moonyoung Chung<sup>3</sup>

Editor in Chief,<sup>1</sup> *Journal of Korean Neurosurgical Society*; Department of Neurosurgery, Seoul National University Boramae Hospital, Seoul, Korea

Associate Editor,<sup>2</sup> *Journal of Korean Neurosurgical Society*; Department of Neurosurgery, Seoul National University Hospital, Seoul National University College of Medicine, Seoul, Korea

Managing Editor,<sup>3</sup> *Journal of Korean Neurosurgical Society*; Department of Neurosurgery, Soonchunhyang University Bucheon Hospital, Soonchunhyang University College of Medicine, Bucheon, Korea

The 2020 impact factor (IF) of the *Journal of Korean Neurosurgical Society* (JKNS) was 1.729, an increase of 26% from the previous year (1.376). The rise in IF and sustaining its upward trend in recent years is very encouraging<sup>4</sup>. It is the results of the unremitting efforts of all members of the Korean Neurosurgical Society (KNS). Awareness of the importance of journal and support from KNS were also of great help<sup>3,4</sup>. In this regard, it is meaningful to discover the most cited papers, topics, and fields published in JKNS.

## THE INFLUENTIAL ARTICLES

The citation data was extracted from the Web of Science on November 28, 2021. The number of articles published in JKNS between January 2019 and November 2020 was 181. The total number of citations was 524, and the average number of citations per article during that period was 2.89. As many as 137

articles were cited at least once, accounting for 75.7% of the total.

Interestingly, compared to the data published in 2020, the average citation number per article increased in accordance with the increase in journal impact factor (JIF), whereas the proportion of uncited articles did not decrease significantly (24.3% vs. 24.5%)<sup>2</sup>. This means that the proportion of more influential articles has increased. A quarter of all citations (131/524) came from 10 out of 181 articles (5.5% of all published articles), indicating the importance of influential articles.

Among the frequently cited articles, six influential articles that received the highest international attention and contributed greatly to the reputation of the journal were selected. It is our honor to announce these articles with the list of the corresponding authors (Fig. 1).

Jung et al. Factors Related to Successful Energy Transmission of Focused Ultrasound through a Skull : A Study in Hu-

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• Address for reprints : Hee-Jin Yang

Department of Neurosurgery, Seoul National University Boramae Hospital, 20 Boramae-ro 5-gil, Dongjak-gu, Seoul 07061, Korea  
Tel : +82-2-870-2303, Fax : +82-2-870-3863, E-mail : nsyangdr@gmail.com, ORCID : <http://orcid.org/0000-0002-6413-1363>

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man Cadavers and Its Comparison with Clinical Experiences. 2019;62(6):712-722 by *Jin Woo Chang* of Yonsei University College of Medicine.

Kim et al. Obtaining Informed Consent Using Patient Specific 3D Printing Cerebral Aneurysm Model. 2019;62(4):398-404 by *Jae IL Lee* of Pusan National University Hospital.

Yang et al. The Present and Future of Vagus Nerve Stimulation. 2019;62(3):344-352 by *Ji Hoon Phi* of Seoul National University Children's Hospital.

Chang et al. Human Induced Pluripotent Stem Cells : Clinical Significance and Applications in Neurologic Diseases. 2019;62(5):493-501 by *Sang-Dae Kim* of Korea University Ansan Hospital.

Ceren et al. Comparison of Biomechanical Properties of Dura Mater Substitutes and Cranial Human Dura Mater : An In Vitro Study. 2019;62(6):635-642 by *Ceren Kizmazoglu* of Dokuz Eylul University School of Medicine

Ko et al. Correction of Spondylolisthesis by Lateral Lumbar Interbody Fusion Compared with Transforaminal Lumbar Interbody Fusion at L4-5. 2019;62(4):422-431 by *Seung Won Park* of Chung-Ang University Hospital

Looking at the types of selected articles, there were three clinical studies, two reviews, and one laboratory investigation. As usual, this means that recruiting review articles will help improve the reputation of *JKNS*. However, the original articles (clinical study and laboratory investigation) published in *JKNS* also show that they make a significant contribution as

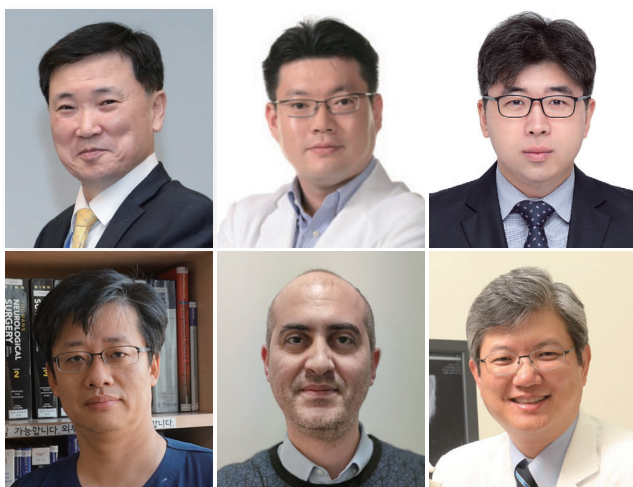
much as reviews, showing a good balance in quality in both the requested review articles and voluntarily submitted original articles. It is well known that most academic journals have about two thirds or three quarters of articles with fewer citations than JIF<sup>1)</sup>. This trend is also found in *JKNS*, which indicates that the value of a scientific journal depends on whether they publish more articles that have higher academic significance.

## THE FIELDS AND TOPICS OF ARTICLES WHICH GOT MORE CITATIONS

The selected influential articles covers most of the major fields of neurosurgery, which are functional, cerebrovascular, spine, pediatric and basic research. However, there is relative paucity of articles in neuro-oncology field among the frequently cited articles when compared to other clinical fields of neurosurgery. Considering that Korean researchers are making many achievements in the field of brain tumors, it will be of great help to the development of *JKNS* if domestic researchers are motivated to publish many brain tumor-related articles. It is also notable that case reports are not listed in the frequently cited articles. It is thought that the editorial board should control the number of published case reports by applying stricter standards concerning the probability of citation in mind when reviewing submitted case reports. Articles on 'focused ultrasound' is one of the influential articles, and its originality was its strong point as an influential article. The goal of *KNS* members is to develop novel topics of interest to overseas readers. Other interesting topics are emerging fields such as artificial intelligence and 3D printing. This suggests that selecting a 'hot topic' for review papers will be a great help in increasing *JKNS*'s citations. In keeping with the rapid development of academia and changing trends, the editorial board should always pay attention to the fields that are receiving attention.

## CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.



**Fig. 1.** The corresponding authors of the six influential articles in the *Journal of Korean Neurosurgical Society* publication between the years 2019 to 2020. From top left to bottom right : Jin Woo Chang, Jae Il Lee, Ji Hoon Phi, Sang-Dae Kim, Ceren Kizmazoglu, and Seung Won Park.

## AUTHOR CONTRIBUTIONS

**Conceptualization** : HJY, CKP, MC  
**Data curation** : MC  
**Formal analysis** : CKP  
**Funding acquisition** : HJY  
**Methodology** : HJY  
**Project administration** : HJY  
**Visualization** : HJY, CKP, MC  
**Writing - original draft** : HJY, CKP, CM  
**Writing - review & editing** : HJY, CKP, CM

## ORCID

Moonyoung Chung <https://orcid.org/0000-0003-4733-6321>  
Chul-Kee Park <https://orcid.org/0000-0002-2350-9876>  
Hee-Jin Yang <https://orcid.org/0000-0002-6413-1363>

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