

Citations of Journal of Korean Neurosurgical Society Assessed by KoMCI-Trends in Recent Five Years

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The authors analyzed the citation of Journal of Korean Neurosurgical Society, based on Korean Medical Citation Index(KoMCI) from 2000 to 2004. In this analysis the impact factor showed no significant further improvement in 2004 compared to 2003. However, the number of received citations was increased remarkably. If this increase can be kept up, it may have positive effect on impact factors. In the era of open competition of medical journals, the awareness and cooperations of every members of Korean Neurosurgical Society is essential for improvement of the status of our journal in a steady trend.

KEY WORDS : Publications · Journal of Korean Neurosurgical Society · Citation · KoMCI.

Introduction

Since the publication of Korean Medical Science Index (KoMCI) 2000 at the year of 2002²⁾, objective evaluation of citations for Korean medical journals became possible. KoMCI provides information of citations of Korean medical journals enlisted on Koreamed, which is a on-line data base provided by Korean Association of Medical Journal Editors.

By using KoMCI 2000, 2001, 2002, and 2003, the authors had performed citation analyses^{7,8)}. After the publication of KoMCI 2004, we did it again in order to evaluate the current status and trend of changes of Journal of Korean Neurosurgical Society(JKNS).

Materials and Methods

KoMCI 2000, published at March 2002, made it possible for objective analysis of citations of Korean medical journals. It analyzed citations of 69 medical journals enlisted in Koreamed among about 220 medical journals published in Korea at the year of 2000. After the publication of KoMCI 2001 at December 2002, KoMCI 2002, 2003, and 2004 were published with regular pace at June 2003, June 2004, and June 2005, respectively²⁻⁶⁾.

KoMCI provides informations on how many Korean articles

are cited in Korean medical journals and which journals are cited how frequently. They also present impact factors at the same way used by Science Citation Index(SCI). In 2005, every data of KoMCI became available on internet.

All five issues of KoMCI were used for analysis. We tried to find if there are changes in citations, impact factors during this period. We also tried to elucidate the causes of changes and to find a solution which might be helpful in improving the status of JKNS.

Results

The number of articles published in JKNS annually was between 221 and 280. There were about 20 references per article. Among the references, Korean citations occupied about 5%, about one Korean references per article. These figures showed no significant change between 2000 and 2003. In 2004, there was a little increase in proportion of Korean references (Table 1).

With respect to impact factor(IF), there was no change until 2002. However it rose remarkably in both numeric value and rank in 2003. Despite this big improvement in IF, impact factor excluding self citation(ZIF) did not show significant change between 2000 and 2003. ZIF was increased to about two times in 2004. However, considering the numerical value and rank,

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Table 1. Changes of citation data of Journal of Korean Neurosurgical Society²⁻⁶⁾

Year	Number of Articles	Number of Citations	Korean Journal Citations(%)	Citations per article	Korean Citations per article
2000	245	5,048	276(5.47)	20.6	1.1
2001	280	5,076	233(4.59)	18.1	0.8
2002	221	4,001	227(5.67)	18.1	1.0
2003	241	4,722	277(5.87)	19.6	1.1
2004	221	4,728	380(8.04)	21.4	1.7

Table 2. Change of impact factors²⁻⁶⁾

Year(y)	Number of Articles		Number of Citations		Citations excluding self-citation		Number of enlisted journals	IF* (ranking)	ZIF** (ranking)
	y-2	y-1	y-2	y-1	y-2	y-1			
	2000	244	247	24	15	2			
2001	247	245	17	16	4	3	75	0.065 (64)	0.008 (65)
2002	245	280	19	12	1	2	81	0.059 (69)	0.006 (71)
2003	280	221	51	37	3	2	92	0.176 (35)	0.010 (77)
2004	221	241	50	41	7	4	105	0.197 (36)	0.024 (77)

* IF : impact factor (number of citations/number of articles) **ZIF : impact factor excluding self-citation

the change does not seem to be considerable(Table 2).

With respect to the number of citations received from Korean journals, JKNS received from 227 to 281 citations annually between 2000 and 2003. Among them, most citations were from JKNS itself. In 2004, the number of received citations was increased to 401, this change was remarkable. This change is caused by increase in both self and non-self citation, without significant change of component ratio. The number of journals citing JKNS as reference was from 13 to 20, which showed no significant change during this period. The number of received citations from medline or SCI enlisted journals in recent 2years also rose markedly in 2004 (Table 3).

We also made a comparison between JKNS and medline or SCI enlisted Korean journals. With respect to IF, JKNS become comparable to these journals in 2003 and 2004. However, ZIF is far smaller, despite recent improvement. Considering IF and ZIF of KoMCI are calculated by Korean citations only, this gap would further widen if the comparison was made including international citations (Table 4).

Discussion

KoMCI, published for the first time at March 2002, made it possible for objective analysis of citations of

Table 3. Changes of citations received : Journal of Korean Neurosurgical Society²⁻⁶⁾

Year	Citations	Self citations	Non-self citations	Citations from SCI/Medline journals		No. of citing journals*
				Total	Recent 2yr	
				2000	276	
2001	238	198 (83.2%)	40 (16.8%)	11	0	13
2002	227	189 (83.3%)	38 (16.7%)	1	0	20
2003	281	239 (85.1%)	42 (14.9%)	3	0	17
2004	401	349 (87.0%)	52 (13.0%)	6	3	18

* excluding Journal of Korean Neurosurgical Society itself

Table 4. Changes of impact factors JKNS vs SCI/Medline enlisted journals²⁻⁶⁾

Year	J Korean NeurosurgSoc	J Korean Med Sci*, **	Korean J Radiol†, **	Younsei Med J**
2000	0.079 (0.0061)***	0.187 (0.171)	N/A§	0.135 (0.103)
2001	0.065 (0.008)	0.166 (0.145)	0.049 (0.000)	0.122 (0.108)
2002	0.059 (0.006)	0.139 (0.127)	0.259 (0.198)	0.145 (0.093)
2003	0.176 (0.010)	0.216 (0.180)	0.425 (0.238)	0.120 (0.102)
2004	0.197 (0.024)	0.167 (0.141)	0.313 (0.175)	0.131 (0.101)

* SCI enlisted **Medline enlisted ***number in parenthesis : ZIF (IF excluding self-citation) † not available (first issue in 2000)

Korean medical journals. Before KoMCI, such analysis was actually impossible. Although foreign data bases provide informations of citations about Korean medical journals, there were only a few journals enlisted, and the proportion of Korean references was very low. In addition to providing useful information about Korean medical journals, KoMCI, sponsored by Korean Foundation for the Support of Medical Sciences, is freely accessible. In 2005, KoMCI web became available, they can get informations about impact factor of certain journals and citations reports of specific articles on internet.

Although KoMCI provides useful informations, there are a few drawbacks. Firstly, the proportion of Korean references is about less than 10%. Therefore, the number of citations used for analysis is relatively small. The relatively large variation of impact factors between years probably reflect this factor - a small change of Korean citation without change of total number of citation could be resulted in relatively large change in impact factors. This drawback is not due to KoMCI, but due to inherent features in Korean medical journal²⁾.

Another drawback is that Journals enlisted in international data base, such as Medline or SCI, do not occupy high ranks in KoMCI. This is probably due to relatively high proportion of self-citation of Korean journals and due to low proportion of Korean citations used for analysis, as described above. Despite these drawbacks, KoMCI provides very useful informations about citations of Korean medical journals. Besides, it is the only way to get such informations at present time.

In our previous analyses using KoMCI, there were some improvements in IF in 2003^{7,8)}. Between 2003 and 2004 there were no significant changes, except for minor improvement in ZIF (Table 2). Although there was no significant change in IF or ZIF, the number of received citations was increased remarkably (Table 3). This discrepancy is caused by the received citations is mainly from journals published in more than 3years old, because IF/ZIF is calculated from the received citations from journals published in recent 2years²⁾.

There is one hopeful finding in received citations : Increase in received citations from Medline/SCI-enlisted journals. In 2004, JKNS received more citations from Korean Medline/SCI-enlisted journals than in any other year except for 2001. Besides, half of the received citations came from the articles published in recent 2years, in 2004, which were used for calculating the IF (Table 3). If this change could be kept in steady trend, there would be more opportunities for JKNS to be exposed in international citations.

Although not established yet, there are several favorable changes in status of JKNS based on KoMCI : increase in Korean citations, improve in IF/ZIF, and increase in received citations. One of the factors for this improvement: the enhanced accessibility. Accessibility to JKNS is maintained by Koreamed. Anyone on internet can search articles published in JKNS in the same way he uses the Pubmed. By Link-Out service, any searched journal can be serviced in full text without charge. Although Koreamed is indexing Korean journals, there are continuous and increasing visit from foreigners. Therefore, Koreamed is one of the most effective way for JKNS to be known internationally.

Changing the language of JKNS to English would be another

factor¹⁾. JKNS have accepted only English manuscript since Jan, 2005. After July 2005, there are only English articles in JKNS. If anyone in the world can read articles in JKNS without linguistic problems, there would be more chance for citation. Koreamed is a way to be known JKNS to international readers, change of language will be a way to increase in received citations from them.

One of the best and fundamental way to improve the status of a journal is improving the quality of articles. The authors should prepare manuscript considering international readers. The reviewers should provide affirmative guides to improve the quality of article. The publisher should have enthusiasm for improving the format and quality of printed journals continuously. The awareness and cooperations of every members of Korean Neurosurgical Society is essential in this process. Only by the efforts of members of Korean Neurosurgical Society, the status of our journal can be improved, and the improved status of JKNS would be beneficial to all members of Korean Neurosurgical Society.

Conclusion

KoMCI provides objective data on citations of Korean medical journals. Although JKNS is in state of improvement, there are still much way to go. In order to make JKNS as a journal with high reputation and authority, the effort of every members of Korean Neurosurgical Society is essential.

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