Analysis of changing pattern of citation metrics of the *Journal of Neurogastroenterology and Motility*

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**Introduction**

The *Journal of Neurogastroenterology and Motility* (JNM) was launched in January 2010 through the conversion of the *Korean Journal of Neurogastroenterology and Motility* which had been published in 1994 through 2009 as the official journal of the Korean Society of Neurogastroenterology and Motility. The main aim of JNM is to provide worldwide researchers, especially Asian researchers, an accessible platform for the publication of their research results in the field of neurogastroenterology and motility. Owing to the active participation of society members and devotion of the editorial board members, JNM was finally accepted as one of the Science Citation Index Expanded (SCIE) journals in 2013. As a result, JNM now becomes an official journal jointly published by the Korean Society of Neurogastroenterology and Motility, the Thai Neurogastroenterology and Motility Society, the Japanese Society of Neurogastroenterology and Motility, the Indian Motility and Functional Disease Association, the Chinese Society of Gastrointestinal Motility, the South East Asia gastro-neuro motility Association, the Taiwan Neurogastroenterology and Motility Society, and the Asian Neurogastroenterology and Motility Association. However, the impact factor (IF), one of influential factors of journals, tends to decrease recently. In this essay, we would like to evaluate the possible causes for the decreased IF and then propose the methods to increase the IF in JNM.

**Current Status of IF in JNM**

As stated before, the active participation of society members and devotion of the editorial board members enabled the IF of JNM to increase steadily, and the IF was 2.698 in 2013 when JNM was accepted as a SCIE journal. The IF of 2.698 ranked 31st among 75 journals in the categories of gastroenterology and hepatology in SCI(E) journals. In addition, the IF of JNM in 2013 was released as 3.537 (18.1 percentile) ranked 24st in the Scopus. We expected the IF would increase further after JNM became a SCI journal. Disappointingly, the self-analyzed IF of JNM in 2014
was found to decrease to 2.194 in the end of March. Of course, this is not final IF and it could be changed a little until the time when the new IF will be announced, May 2015. However, the tendency of decrease in IF comes to surprise the editorial board members, and so the publication committee of JNM evaluated the possible causes for the decreased IF so that appropriate strategies could be implemented to increase it.

Possible Causes Explaining Decreased IF in JNM

First possible cause is that the denominator used in calculating the IF had increased. The number of review articles, original articles and case reports is included in the denominator of IF. The number of original articles per issue between 2013 and 2014 was 10 while the number of original articles per issue between 2011 and 2012 was 7. Therefore, it appears that the increase in number of citations could not catch up with the sudden increase in the number of original articles in recent issues. Furthermore, we found “How to interpret a functional or motility test” was included in the analysis of IF by Thomson Reuters. Second, the poorly cited sections are present in JNM. The frequency of citations for sections such as “Case report” and “How to interpret a functional or motility test” was very low (less than 1). Third, the frequency of citations for recently published review articles decreased, mainly because of the exhaustion of influential review article subjects and authors. Fourth, self-citation of papers published in JNM was not satisfactory. In fact, the self-citation IF in JNM also decreased from 0.417 in 2013 to 0.233 in 2014. It could be due to the authors of published papers in 2014 did not know much about the JNM papers in 2012 and 2013. This might suggest that significant portion of new authors in the world were not familiar with JNM papers. Finally, there could be a tendency to accept relatively low quality or less interesting papers. There are several reasons behind this; sudden increase in the number of submitted papers, inadequate filtration of these papers due to limited number of reviewers, especially in the basic science field, generosity towards papers from Asian countries, and increased acceptance of out of mode “Me too” papers and papers with less interesting subjects.

How to Increase the IF of JNM

Although the IF itself is not absolute for evaluating the importance of journals, most investigators regard IF as important in choosing the journal to which they submit their papers. Considering this situation, are there any methods to increase the IF of JNM? The publication committee of JNM had discussed extensively about this issue and brought up with the following strategies to increase the IF. First, it is essential to slim down the JNM. For this, removal of poorly-cited sections such as “Case report” and “How to interpret a functional or motility test”, consideration of decreasing the number of published original articles (to 8) and review articles (to 2-4), and proper use of early on-line publications are required. Second, improvement in the review system for submitted manuscripts is needed. Allocating associate editors to more specialized fields efficiently, maintaining quality and duty of editorial board members, creating a pool of specialized reviewers according to the subjects in order to decrease reviewers’ burden, rewarding high-quality reviewers appropriately, or creating a link to JNM papers similar to the submitted manuscript in the review system can be considered. Third, highly citable subjects are required. To achieve this, it is necessary to ask experienced authors to write review articles as well as original articles. It is also important to find new pioneering authors, especially young investigators, to be able to publish high-quality papers consistently, and potential subjects after analyzing the highly citable papers. In addition, there is a tendency that meeting-related publications are poorly citable and that a clinical study is more likely to be cited when compared to a basic study in case of original article. Finally, a few other methods to increase the IF are as follows; to increase the self-citation rate, to encourage authors to cite “How to interpret a functional or motility test” in the papers about motility tests, to encourage editorial board members to cite the papers in JNM, to contact authors having highly cited papers consistently, to provide feedback to authors about citation results, or to release e-pub as soon as possible for the most accepted articles.

Consideration in Setting Up the Strategies to Increase IF

As stated before, the IF is important to gauge the influence of journals. However, before applying the above-mentioned strategies to increase the IF of JNM, there are some important points to consider. First, this situation could be a transient phenomenon occurring with most journals after being indexed as SCIE. If so, then the IF would recover to the previous level or even surpass it gradually as time goes by. Second, the balance between clinical studies and basic studies and between major subjects and minor subjects is necessary in JNM irrespective of IF. Finally, the aims of JNM such as providing researchers, especially Asian researchers, with a platform for publication of their results and increasing the base of investigators engaged in the field of neurogastroenterology and motility should be preferentially considered.
Conclusion

Herein, we evaluated the possible causes for the decreased IF and suggested the methods to increase the IF in JNM. Giving consideration to the facts that it has taken only 2 years after JNM was accepted as a SCIE journal and that this situation might be transient, it seems that are somewhat impatient. However, decreased IF has made us to look back into past 2 years. As a result, we can find important issues for development of JNM. Last, we hope that our strategies will be helpful for other Korean Journals which are in similar situation after accepted as SCI(E) journals.

Conflict of Interest

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