

Review Article

Citation Analysis of the *Korean Journal of Urology* From Web of Science, Scopus, Korean Medical Citation Index, KoreaMed Synapse, and Google Scholar

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The *Korean Journal of Urology* began to be published exclusively in English in 2010 and is indexed in PubMed Central/PubMed. This study analyzed a variety of citation indicators of the *Korean Journal of Urology* before and after 2010 to clarify the present position of the journal among the urology category journals. The impact factor, SCImago Journal Rank (SJR), impact index, Z-impact factor (ZIF, impact factor excluding self-citation), and Hirsch Index (H-index) were referenced or calculated from Web of Science, Scopus, SCImago Journal & Country Ranking, Korean Medical Citation Index (KoMCI), KoreaMed Synapse, and Google Scholar. Both the impact factor and the total citations rose rapidly beginning in 2011. The 2012 impact factor corresponded to the upper 84.9% in the nephrology-urology category, whereas the 2011 SJR was in the upper 58.5%. The ZIF in KoMCI was one fifth of the impact factor because there are only two other urology journals in KoMCI. Up to 2009, more than half of the citations in the Web of Science were from Korean researchers, but from 2010 to 2012, more than 85% of the citations were from international researchers. The H-indexes from Web of Science, Scopus, KoMCI, KoreaMed Synapse, and Google Scholar were 8, 10, 12, 9, and 18, respectively. The strategy of the language change in 2010 was successful from the perspective of citation indicators. The values of the citation indicators will continue to increase rapidly and consistently as the research achievement of authors of the *Korean Journal of Urology* increases.

Keywords: Analysis; Bibliometrics; Database; Korea

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INTRODUCTION

The *Korean Journal of Urology* (KJU) is the official English-language open access journal of the Korean Urological Association. It is a peer-reviewed, monthly publication covering clinical and basic science information relevant to physicians and researchers in the field of urology. It was first published in 1960. The Korean title of the journal had been the *Taehan Pinyogikwa Hakhoe chi* (ISSN 0494-4747). The journal was renamed the *Korean Journal of Urology* (ISSN 2005-6737) to increase its international recognition in February 2009. It began to be published in English only from the first issue of 2010 to provide in-

valuable information to physicians, researchers, and laypersons worldwide. It was included in PubMed Central and PubMed in April 22, 2010, so that all papers from 2010 became freely accessible through the internet. It has been indexed in Scopus back through the 2005 issues and in the Korean Medical Citation Index (KoMCI) since 2000. A digital object identifier (DOI) was added beginning with the 2005 issues. Starting in 2013, audiovisual materials are now linked with YouTube via a quick response code (QR code) and social networking services have been activated.

Whether open access journals receive more citations than non-open access journals remains under debate. In a recent comparison study, open access journals were found to re-

ceive almost the same number of citations as subscription journals in the field of biomedicine [1]. It is this author's belief that inclusion in PubMed is more important than open access for increasing citations of medical journals, because PubMed is still the primary search tool for most medical researchers. Google Scholar is the most powerful search tool for a variety of research fields; however, the medical field differs. Almost 3 years have passed since the KJU was first included in PubMed Central/PubMed. Therefore, it is time to check whether the number of citations has increased. It would also be interesting to gather a variety of bibliometric indicators to understand the present position of the KJU in the field of urology. Among various citation indicators, the 2-year impact factor, SCImago Journal Rank (SJR), 2-year impact index, Z-impact factor (ZIF, impact factor excluding self-citation), and Hirsch Index (H-index) were referenced or calculated from Web of Science, Scopus, SCImago Journal & Country Rank, KoMCI, KoreaMed Synapse, and Google Scholar [2-7]. These findings will provide insight into how to manage the journal to obtain an elite reputation among not only urologists but also researchers in related areas.

MATERIALS AND METHODS

1. Databases

Web of Science is the citation database operated by Thomson Reuters that covers 8,576 science journals as well as social science journals and arts and humanities journals. Journal Citation Reports (JCR) provides citation indicators based on the Web of Science, such as the 2-year impact factor [7]. Scopus is another citation database managed by Elsevier that provides the citation data for more than 18,000 journals in the sciences, social sciences, and arts and humanities. The SJR provides a citation indicator based on Scopus. Because the journals included in calculating the JCR and the SJR differ, the two citation indicators turn out to be somewhat different. KoMCI is the citation database maintained by the Korean Association of Medical Journal Editors since 2003. Because it is based on only medical journals from Korea, the citation indicators are usually lower than those from JCR or SJR. The number of medical journals in KoMCI increases yearly. For KoMCI 2011, the total number of journals was 184. The DOI is not a database, but it is possible to obtain the citation frequency of each paper through KoreaMed Synapse by using the "cited by" function. Google Scholar is a meta-database of scholarly journals and books. Because KJU has been crawled by the Googlebot, all of the content of KJU is searchable from Google Scholar.

2. Citation indicators

1) Total citations

This is the number of citations in a given year of a target journal regardless of its publication year in the citation database.

2) Impact factor

This indicator shows how rapidly the journal contents are

used; therefore, it is high in rapidly developing areas of research. It can be calculated as follows:

Let citations in 2012 of articles published in 2010=A and citations in 2012 of articles published in 2011=B

Sum=A+B.

Let number of articles published in 2010=C and number of articles published in 2011=D

Sum=C+D.

Calculation:

Citations of recent articles in 2012: A+B

Number of recent articles published in 2010 and 2011: C+D

2012 (2-year) impact factor=(A+B)/(C+D)

3) Z-impact factor

This measurement is based on KoMCI. It is the impact factor excluding self-citation. The calculation equation is the same as for the impact factor but excludes citations by the same journal. In the JCR, the same indicator is available; however, KJU is not yet indexed in Science Citation Index Expanded (SCIE); thus, it is not necessary to consider self-citation in the Web of Science at present.

4) SCImago Journal Rank (SJR)

This is calculated on the basis of citation weighting schemes and eigenvector centrality [6]. It reflects the "average prestige per article" so that when there are citations by high reputation journals, the SJR value increases more than with citations by low reputation journals.

5) Impact index

This index was named by SCImago Journal & Country Rank. The calculation equation is the same as for the impact factor; however, the list of journals in the database is different.

6) H-index

This index is defined as the number of papers with a citation number= h . A scientist has index h (the Hirsch number) if h of his or her N_p (number of published) papers have at least h citations each and the other ($N_p - h$) papers have $=h$ citations each regardless of authors or journals [8]. Although it was originally designed to evaluate a scientist's productivity, it is also used for the productivity of journals or institutions. A higher H-index of the journal means that there were many high-quality papers.

3. Analysis methods

1) Total citations

This was found in KoMCI. It was manually calculated from the Web of Science from the 'Cited References' field.

2) Impact factor & impact index

Obtaining these two measures from KoMCI and Scopus/SCImago Journal & Country Rank was simple because the KJU is included in those two databases. As for the impact factor from the Web of Science, it was manually

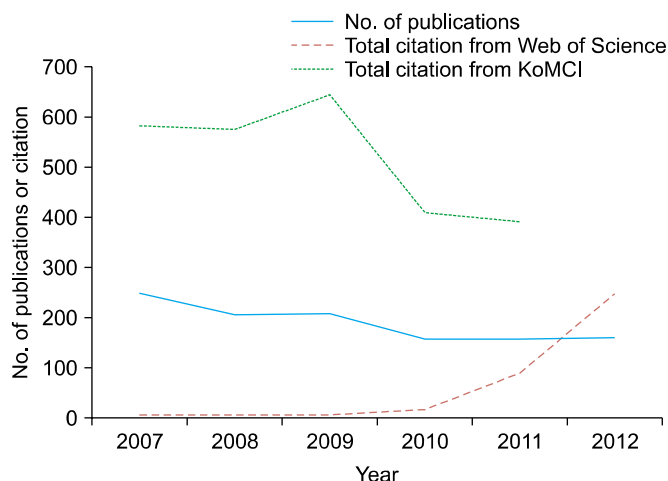


FIG. 1. Total citations of the *Korean Journal of Urology* from Korean Medical Citation Index (KoMCI) and Web of Science and the number of publications according to year [2,5; cited 2013 Feb 2].

calculated from the database because the KJU is not yet indexed in the Web of Science as an SCIE journal.

3) Z-impact factor

This value was obtained only from KoMCI Web.

4) SJR

This ranking is a unique indicator presented by Scopus/SCImago Journal & Country Rank. The SJRs of the other two urology journals from Asia were also compared with that of the KJU.

5) Citation frequency from Web of Science

Besides the impact factor and total citations, the country of citation, citing year, and publication type were compared between papers from 1960 to 2009 (Korean or English) and those from 2010 to 2012 (English only). The difference in the two categories is that the later papers have been indexed in PubMed/PubMed Central.

6) H-index

The H-index is easily accessible from KoMCI Web, Scopus, KoreaMed Synapse, and Google Scholar. The H-index from Web of Science was calculated from manual searches by using the 'Cited Reference Search' field. The first 500 articles from Google Scholar were used to calculate the citation frequency for the H-index.

RESULTS

The chronological total citations in Web of Science and KoMCI Web are shown in Fig. 1. The number of publications per year showed a gradual decrease, as did the total number of citations; however, the total citation number from Web of Science began to increase beginning in 2011. Data for the 2012 total citations were not yet available from KoMCI at the time of writing.

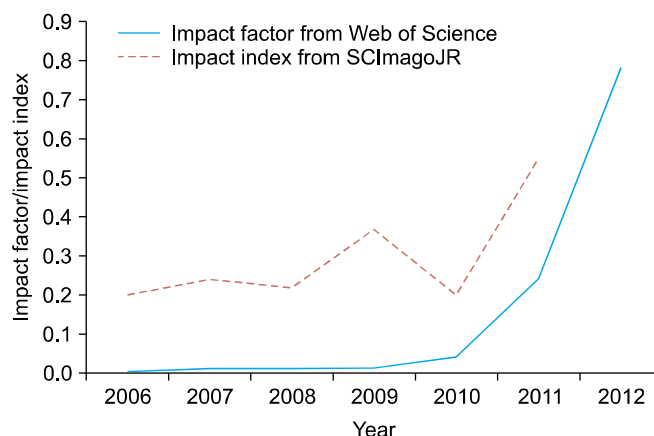


FIG. 2. Impact factors from of the *Korean Journal of Urology* (KJU) that were manually calculated from Web of Science and impact index of the KJU in SCImago Journal & Country Rank according to year [2,4; cited 2013 Feb 2].

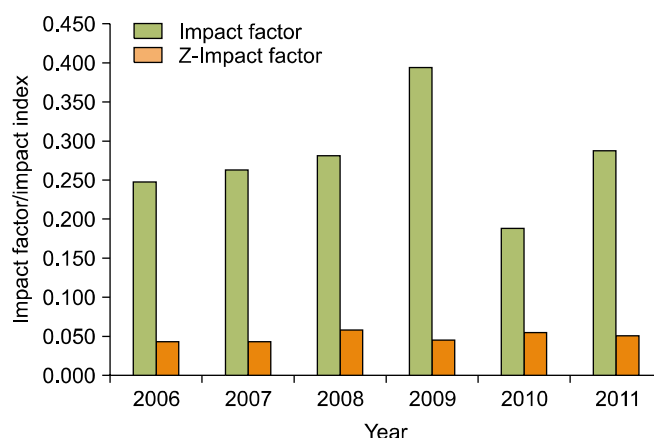


FIG. 3. Impact factor and Z-impact factor (excluding self-citation) of the *Korean Journal of Urology* from KoMCI according to year [5; cited 2013 Feb 2].

The impact factor from Web of Science and the impact index from SCImago Journal & Country Rank are presented in Fig. 2. The impact factor from Web of Science and impact index from SCImago Journal & Country Rank began to increase dramatically beginning in 2011. The impact factor and Z-impact factor from KoMCI are presented in Fig. 3. The impact factor in KoMCI fluctuated; however, there was consistency in the ZIF from KoMCI. The impact factor from KoMCI included self-citation. If the 2012 impact factor from Web of Science (0.78) was applied to the 2011 JCR, KJU's ranking in the nephrology-urology category was in the upper 84.9% (62/73). If the nephrology category journals were excluded, the ranking was in the upper 80.0% (28/35). Meanwhile, the SJR ranking in the urology category was in the upper 58.5% (31/53). The difference between the ranking of the impact factor and that of the SJR is based on the greater number of urology journals in Scopus with fewer citations.

The chronological SJR of three journals from Asia including the KJU are compared in Fig. 4. The *International Journal of Urology* is the official English-language journal of the Japanese Urological Association. The *International Journal of Urology* is published by Wiley-Blackwell on behalf of the association. It is searchable from PubMed but not from PubMed Central. The *Indian Journal of Urology* is the official journal of the Urological Society of India and is published by Medknow Publications and Media Pvt. Ltd, of which the full text from the 2007 volume is available in PubMed Central. From the Web of Science citation frequency, the country of researchers citing KJU was compared between the Korean or English volumes and the English only volumes (Fig. 5). The total number of citations in the Web of Science citing KJU was 396 times for the peri-

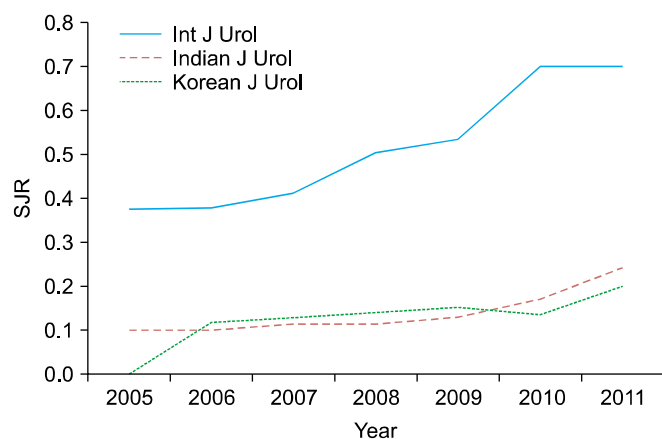


FIG. 4. SCImago Journal Rank (SJR) of the *International Journal of Urology* (Int J Urol), *Indian Journal of Urology* (Indian J Urol), and *Korean Journal of Urology* (Korean J Urol) according to year [4; cited 2013 Feb 2].

od up to 2009 out of a total of 6,912 papers (5.3%) and 347 times for the period from 2010 to 2012 out of a total of 481 papers (72.1%). Thus, in just 3 years, the KJU has had about the same number of citations as in its entire previous 50-year publication history since 1960. The years of citation of the two periods are compared in Fig. 6. There was a dramatic increase in the citations in 2012 for papers in English. The publication types of citing papers were also compared between the two periods (Fig. 7). The portion of review articles was greater in the latter period (2010–2012) than in the former one (1960–2009).

The H-index from the Web of Science was 8 and the most frequently cited papers and the number of citations are presented in Table 1. The H-index from Scopus was 10, which is presented in Table 2 along with the most frequently cited papers. The H-index from KoMCI was 12 (Table 3). The H-index by DOI from KoreaMed Synapse was 9 (Table 4). The H-index from Google Scholar was 18 (Table 5).

DISCUSSION

We can see the rapid increase in citation indicators such as the impact factor and annual total citations by SCIE journals after the language of the KJU was changed to English and the journal was included in PubMed Central/PubMed in 2010. We can see these kinds of phenomena consistently with other medical journals published in Korea. For example, the citation frequency of the *Korean Journal of Internal Medicine* by SCIE journals increased dramatically after inclusion of that journal in PubMed Central [9]. In anticipation of these phenomena, publishers of many medical journals in Korea have begun to switch their language to English to add their journals to PubMed Central/PubMed. The strategy of changing to English can be said to be successful with regard to citation

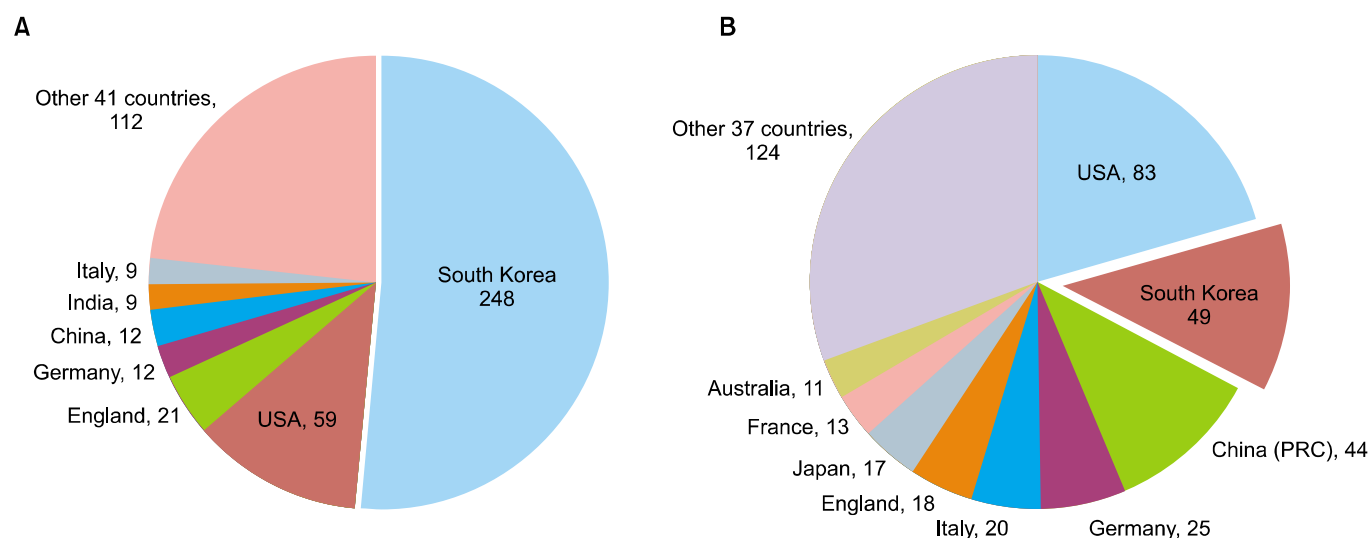


FIG. 5. (A) Countries of authors who cited the *Korean Journal of Urology* from volume 1 (1960) to volume 50 (2009), manually calculated from Web of Science [2; cited 2013 Feb 2]. (B) Countries of authors who cited the *Korean Journal of Urology* from volume 51 (2010) to volume 53 (2012), manually calculated from Web of Science [2; cited 2013 Feb 2].

frequency by international researchers. The quality of the KJU had been underestimated in the past owing to the language barrier. If there was a language barrier, or the journal wasn't indexed, researchers simply couldn't find or read the articles. One can imagine a very high quality journal existing that people could not read because of language.

Although the total citation count from KoMCI decreased, because that citation count is a measure of citations by journals from Korea, the total citation count from the Web of Science increased dramatically since 2011 (Fig. 1). The im-

portant factor and impact index have also increased significantly although the number of papers published annually has decreased each year since 2010 (Fig. 2). This is believed to be the result of the PubMed Central/PubMed effect. The difference in the impact factor and ZIF from KoMCI is due to the fact that there are only three journals in the field of urology in KoMCI: the *International Neurourology Journal*, *Korean Journal of Andrology*, and KJU. The number of papers from KJU is two times of that of the two other journals, so that most of the local citations originate from KJU itself. In the comparison of the three urology category journals from Asia, the English language journal *International Journal of Urology* published by the Japanese Urological Association showed the highest SJR. Next was the *Indian Journal of Urology*, which is also indexed in PubMed Central/PubMed. KJU ranked third among these journals by its SJR. However, according to the speed of the progress of KJU, the KJU has the potential to achieve a higher SJR very soon (Fig. 4).

KJU has a history of 54 years of publication. Interestingly, the citation number of papers from 1960 to 2009 by SCIE journals was 396 and that from 2010 to 2012 was 347. This is likely due to the listing in PubMed Central/PubMed. For the papers from 1960 to 2009, more than half of the citations were made by Korean researchers (51.5%), whereas for those from 2010 to 2012, only 14.1% of the citations were by Korean researchers. Among the countries citing the KJU, researchers from the United States have cited KJU most frequently in recent years (Fig. 5B). In Fig. 6, it can be seen that the citation frequency of the English papers increased sharply from 2010 to 2012. In the comparison of types of articles citing the KJU, a larger proportion of review articles (21.5%) was found for 2010–2012 KJU papers,

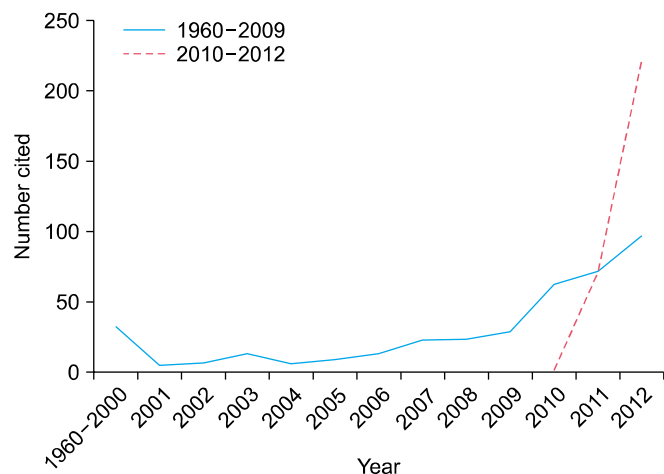


FIG. 6. Citation frequency of the *Korean Journal of Urology* from 1960 (volume 1) to 2009 (volume 50) and from 2010 (volume 51) to 2012 (volume 53) by Science Citation Index Expanded journals, manually calculated from Web of Science according to year [2; cited 2013 Feb 2]. Volumes from 1 to 50 are also cited in 2010 to 2012.

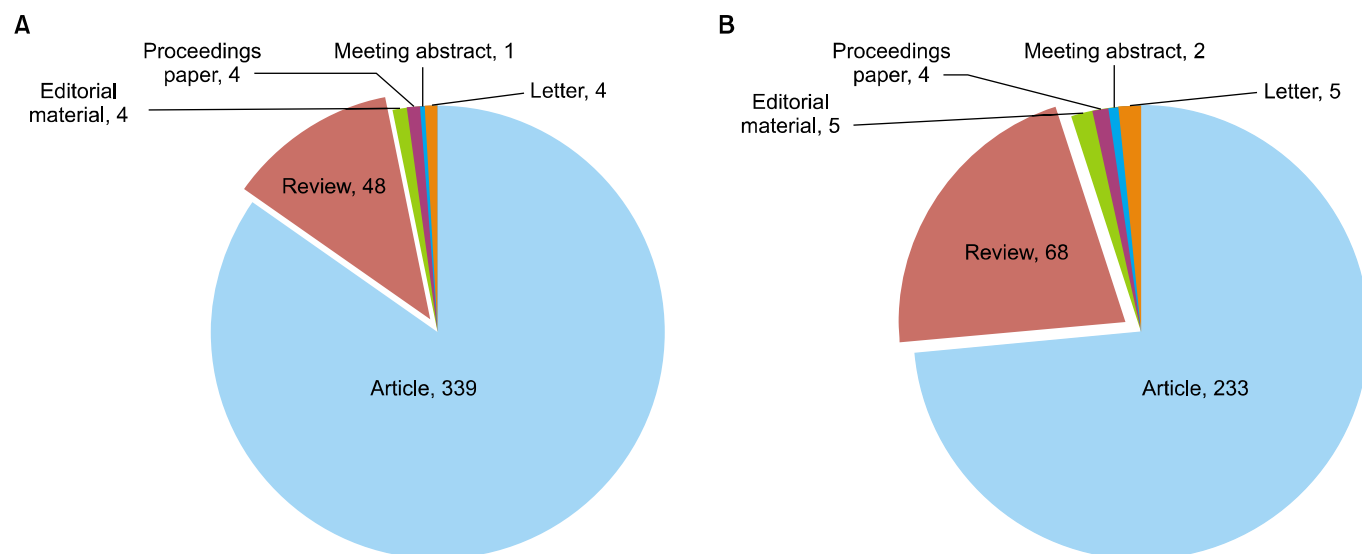


FIG. 7. (A) Number of publications by types of papers that cited the *Korean Journal of Urology* published from 1960 (volume 1) to 2009 (volume 50), manually calculated from Web of Science according to year [2; cited 2013 Feb 2]. (B) Number of publications by types of papers that cited the *Korean Journal of Urology* published from 2010 (volume 51) to 2012 (volume 53), manually calculated from Web of Science according to year [2; cited 2013 Feb 2].

TABLE 1. Hirsch index of the *Korean Journal of Urology* from Web of Science [2; cited 2013 Feb 3]

Ranking	Article title	Volume	Page	Year	Publication type	No. of cited
1	Laparoendoscopic single-site surgeries: a single-center experience of 171 consecutive cases	52	31	2011	Original article	18
2	Validation of an abridged Korean version of the International Index of Erectile Function (IIEF-5) as a diagnostic tool for erectile dysfunction	42	535	2001	Original article	16
3	Initial experience with laparoendoscopic single-site surgery by use of a homemade transumbilical port in urology	51	613	2010	Original article	11
4	Dimethoxycurcumin, a structural analogue of curcumin, induces apoptosis in human renal carcinoma caki cells through the production of reactive oxygen species, the release of cytochrome C, and the activation of caspase-3	51	870	2010	Original article	9
5	Concomitant laparoendoscopic single-site surgery for ureterolithotomy and contralateral renal cyst marsupialization	52	64	2011	Illustrated surgical technique	8
6	Predictive characteristics of malignant pheochromocytoma	52	241	2011	Original article	8
7	Transumbilical laparoendoscopic single-site ureterolithotomy for large impacted ureteral stones: initial experiences	51	403	2010	Original article	8
8	The Korean version of the International Index of Erectile Function (IIEF): Reliability and validation study	40	1334	1999	Original article	8

TABLE 2. Hirsch index of the *Korean Journal of Urology* from Scopus [3; cited 2013 Feb 3]

Ranking	Article title	Volume	Page	Year	Publication type	No. of cited
1	Laparoendoscopic single-site surgeries: a single-center experience of 171 consecutive cases	52	31	2011	Original article	28
2	Initial experience with laparoendoscopic single-site surgery by use of a homemade transumbilical port in urology	51	613	2010	Original article	17
3	Transumbilical laparoendoscopic single-site ureterolithotomy for large impacted ureteral stones: initial experiences	51	403	2010	Original article	13
4	A recent study on the antimicrobial sensitivity of the organisms that cause urinary tract infection	48	638	2007	Original article	12
5	Effect of tamsulosin on the expectant treatment of lower ureteral stones	47	708	2006	Original article	12
6	Robot-assisted laparoscopic radical prostatectomy: clinical experience of 200 cases	49	215	2008	Original article	11
7	Translation and linguistic validation of Korean version of the King's Health Questionnaire instrument	46	438	2005	Original article	11
8	Overactive bladder	48	1191	2007	Review	10
9	Comparison of the rate of detecting prostate cancer and the pathologic characteristics of the patients with a serum PSA level in the range of 3.0 to 4.0 ng/ml and the patients with a serum PSA level in the range 4.1 to 10.0 ng/mL	47	358	2006	Original article	10
10	A study of antimicrobial sensitivity to the causative organism of urinary tract infection	46	68	2005	Original article	10

whereas the proportion of review articles for the 1960–2009 KJU papers was 12.0%. This difference implies that if any papers are written in English and indexed in PubMed Central/PubMed, their chance of being cited by review writers increases such that writing papers in English is very important (Fig. 7).

Recently, of the various citation indicators for researchers, the H-index has become more important for the evaluation of research activity. It is still not common to use the H-index to measure the prestige of a journal, because the impact factor is the traditional indicator. However, the

impact factor usually refers to the 2-year impact factor to determine if any journal is included in very rapidly evolving fields such as genomics and stem cell research. The H-index can be used to assess journal prestige because the journals with a long history that publish many papers score highly. Use of any of the citation indicators alone, however, provides only a limited perspective. The H-indices of KJU from the Web of Science and Scopus were 8 and 10, respectively, which are meaningful values (Tables 1, 2). The H-index calculated by DOIs from KoreaMed Synapse was 9 (Table 3). Because the DOIs were added only for issues

TABLE 3. Hirsch index of the *Korean Journal of Urology* from KoMCI [5; cited 2013 Feb 3]

Ranking	Article title	Volume	Page	Year	Publication type	No. of cited
1	Epidemiological study for urologic cancer in Korea (1998-2002)	45	1081	2004	Original article	29
2	A study of the changes of antibiotic sensitivity to the causative organisms of urinary tract infection for recent 5 year.	40	809	1999	Original article	22
3	Validation of an abridged Korean version of the International Index of Erectile Function (IIEF-5) as a diagnostic tool for erectile dysfunction	42	535	2001	Original article	21
4	The Korean version of the International Index of Erectile Function (IIEF): reliability and validation study	40	334	1999	Original article	19
5	A multicenter study of antimicrobial susceptibility of uropathogens causing acute uncomplicated cystitis in woman	44	697	2003	Original article	17
6	The effects and complications of transurethral resection for benign prostatic hyperplasia: results of long-term follow-up	37	268	1996	Original article	16
7	Value of PSA density, PSA velocity and percent free PSA for detection of prostate cancer in patients with serum PSA 4-10 ng/ml patients.	45	747	2004	Original article	15
8	Major factors influencing on the success of extracorporeal shock wave lithotripsy	35	265	1994	Original article	14
9	Antibiotic sensitivity to the causative organism of acute simple urinary tract infection.	41	1117	2000	Original article	14
10	Prevalence of sexual dysfunction in men older than 40 living in Seoul: epidemiologic survey using questionnaire.	43	52	2002	Original article	14
11	Prevalence of benign prostatic hyperplasia in Jeong-Eup area: Community-based study	40	52	1999	Original article	13
12	Prostatitis	35	575	994	Review	13

TABLE 4. Hirsch index of the *Korean Journal of Urology* through digital object identifier from KoreaMed Synapse [6; cited 2013 Feb 3]

Ranking	Article title	Volume	Page	Year	Publication type	No. of cited
1	Laparoendoscopic single-site surgeries: a single-center experience of 171 consecutive cases	52	31	2011	Original article	19
2	Effect of tamsulosin on the expectant treatment of lower ureteral stones	47	708	2006	Original article	12
3	Initial experience with laparoendoscopic single-site surgery by use of a homemade transumbilical port in urology	51	613	2010	Original article.	11
4	Robot-assisted laparoscopic radical prostatectomy: clinical experience of 200 cases	49	215	2008	Original article	10
5	A recent study on the antimicrobial sensitivity of the organisms that cause urinary tract infection	48	638	2007	Original article	10
6	Overactive bladder	48	1191	2007	Review	10
7	Voiding dysfunction of men is associated with metabolic syndrome	47	257	2006	Original article	10
8	The role of alpha 1 (A) adrenoceptor antagonist tamsulosin for the treatment of patients with benign prostatic hyperplasia: the effect on lower urinary tract symptoms and nocturia	47	1	2006	Original article	10
9	Transumbilical laparoendoscopic single-site ureterolithotomy for large impacted ureteral stones: initial experiences	51	403	2010	Original article	9

from 2005 to the present, the H-index may increase if all previous papers from the launch in 1960 were provided with DOIs. The H-index of 12 in KoMCI is also a much higher value because the KoMCI is a citation database of Korean medical journals beginning in the year 2000. It can be said that citation by papers from Korea occurred more than by papers from international journals until now (Table 4, Fig. 6). The H-index from Google Scholar was 18. Google Scholar comprises all issues of the KJU from the

launch in 1960 to the present. Thus, Google Scholar provides the most accurate picture of prestige out of the five databases. The H-indexes of the *Korean Journal of Internal Medicine* from the Web of Science, Scopus, and KoMCI were 14, 16, and 5, respectively [9]. The difference in the H-index between the *Korean Journal of Internal Medicine* and KJU originates from the fact that the former has been written only in English and indexed in Medline/PubMed since 1986, although the number of papers from the former is less

TABLE 5. Hirsch index of the *Korean Journal of Urology* from Google Scholar [7; cited 2013 Feb 3]

Ranking	Article title	Volume	Page	Year	Publication type	No. of cited
1	Epidemiological study for urologic cancer in Korea (1998-2002)	45	1081	2004	Original article	55
2	Validation of an abridged Korean version of the International Index of Erectile Function (IIEF-5) as a diagnostic tool for erectile dysfunction	42	535	2001	Original article	42
3	Prevalence of sexual dysfunction in men older than 40 living in Seoul: epidemiologic survey using questionnaire	43	52	2002	Original article	27
4	Laparoendoscopic single-site surgeries: a single-center experience of 171 consecutive cases	52	31	2011	Original article	26
5	Translation validity and reliability of I-PSS Korean version	37	659	1996	Original article	24
6	Value of PSA density, PSA velocity and percent free PSA for detection of prostate cancer in patients with serum PSA 4-10 ng/mL patients	45	747	2004	Original article	24
7	A multicenter study of antimicrobial susceptibility of uropathogens causing acute uncomplicated cystitis in woman	44	697	2003	Original article	22
8	The Korean version of the International Index of Erectile Function (IIEF): reliability and validation study	40	1334	1999	Original article	21
9	Effect of tamsulosin on the expectant treatment of lower ureteral stones	47	708	2006	Original article	21
10	Voiding dysfunction of men is associated with metabolic syndrome	47	257	2006	Original article	20
11	A study of antimicrobial sensitivity to the causative organism of urinary tract infection	46	68	2005	Original article	19
12	A recent study on the antimicrobial sensitivity of the organisms that cause urinary tract infection	48	638	1007	Original article	19
13	Translation and linguistic validation of Korean version of the King's Health Questionnaire instrument	46	438	2005	Original article	18
14	The clinical utility of BTA TRAK, BTA stat, NMP22 and urine cytology in the diagnosis of bladder cancer: a comparative study	44	721	2003	Original article	18
15	A short-term comparative study on efficacy and safety of standard transurethral resection and high power (80W) potassium-titanyl-phosphate laser vaporization of the prostate	46	1251	2005	Original article	18
16	Predictive factors for persistent urgency or urge incontinence after tension-free vaginal tape procedure in mixed urinary incontinence	45	330	2004	Original article	18
17	Laparoscopic radical prostatectomy	44	617	2003	Original article	18
18	The role of alpha 1 (A) adrenoceptor antagonist tamsulosin for the treatment of patients with benign prostatic hyperplasia: the effect on lower urinary tract symptoms and nocturia	47	1	2006	Original article	18

than for KJU.

It is worth considering what kinds of publications are cited most frequently. Of the papers ranked in the H-index of the five databases, only two papers were review articles. One publication of the type "illustrated surgical technique" was also included. The others were all original articles. Therefore, it can be said that original articles and reviews are the main source of citations, rather than case reports. If an "illustrated surgical technique" provides a recently developed technique, there is a chance of frequent citation by other surgeons. Out of the articles with higher citations in the H-index tables, three papers in the Web of Science tables corresponded to those in SCOPUS (Tables 1, 2). This is because SCOPUS includes KJU from 2005, whereas the Web of Science does not. There is a large proportion of self-citation by KJU in Scopus. Six of 12 papers from the KoMCI table corresponded to papers in the Google Scholar table (Tables 3, 5). Three of 9 papers from the KoreaMed

Synapse tables corresponded to papers in the Google Scholar table (Tables 4, 5). This can be explained by the fact that KoMCI, KoreaMed Synapse, and Google Scholar contain KJU from 2000, 2005, and 1960, respectively. Two of 8 papers from Web of Science corresponded to papers in the Google Scholar table (Tables 1, 5). This is possible because Google Scholar has indexed all issues of the KJU.

CONCLUSIONS

The citation indicators of the KJU vary according to the database. The strategy of switching to an English-language format allowed KJU to be cited more frequently by international researchers after being indexed in PubMed Central/PubMed. The 2012 impact factor ranking manually calculated from Web of Science corresponds to the upper 84.9%; meanwhile, the 2011 SJR ranking corresponds to the upper 58.5%. Those values will increase rapidly year

by year because KJU is an open access journal indexed in most of the well-known databases. The H-index of 8 from the Web of Science is also a remarkable achievement. To be cited more frequently, good original articles and high-quality review articles should be contributed. Because more than 85% of the citations are from international researchers, KJU is already established as an international journal. There will be no obstacles to becoming a top-ranking urology journal if the present editorial policy is maintained consistently, including the application of social networking services and YouTube.

CONFLICTS OF INTEREST

The author has nothing to disclose

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