

論 文

Investigative Analysis of Japanese journals covered in PubMed for recent January 2013 and May 2016

PubMedの2013年1月から2016年5月に収録されている日本の学術雑誌に関する調査分析

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Abstract:

Purpose This paper is aimed to identify how many journals of Japan are included in PubMed for recent January 2013 and May 2016, and based on comparing them with the analyzed results ten years ago, to understand the characteristics of current Japanese journals covered for PubMed.

Methods By inputting as Japan[pl] in the query box of PubMed, the articles in journals which the publication place of the journal is Japan are retrieved. Next, by limiting the publication year for January 2013 and May 2016, the kind number of Japanese journals was counted from the list of the result in ascending order of the journal name. And, to understand the characteristics of Japanese journals, those publisher, language used, publication start year, start year of indexing in PubMed, publication frequency, current indexing status in PubMed, and uploading status to PubMed Central were searched by using Journals in NCBI Database.

Results When the journal names published 54,000 articles were permuted alphabetically and the kind number was counted 173 journals. In addition to them, by adding three journals which covered in the former list and leaked in this time investigation, in total 176 Japanese journals were identified in PubMed. Of which

39 journals (22%) published by the publisher in the foreign country consist of the Springer 26 journals, Elsevier 5, Oxford University Press (OUP) 4, and Blackwell and Taylor & Francis each 2. There are 112 journals (64%) which the language was being written only in English, 19 journals (11%) in both English and Japanese, and 45 journals (25%) in Japanese only. Concerning their publication start year, 23 journals are published before 1945, 20 journals are published between 1946 and 1955, 42 journals between 1996 and 2005, and 19 journals between 2006 and 2015. As regards their start year of indexing in PubMed, 31 journals were indexed before 1965, 45 journals between 1996 and 2005, and 44 journals between 2006 and 2015. Concerning their publication frequency, 49 journals published by bi-monthly, 48 journals by quarterly, 47 journals by monthly. As regards current indexing status, 120 journals are indexed for MEDLINE, 39 journals for both OLDMEDLINE and MEDLINE, and 17 journals are included in PubMed, not indexed for MEDLINE.

Conclusion 32 Japanese journals are uploaded to PubMed Central. Of which 15 journals are indexed for MEDLINE and the rest 17 journals are not indexed for MEDLINE. It found that uploading a journal to PubMed Central can become an optional tactics easily to be selected for PubMed.

Introduction

When the researcher in the life and health sciences fields, the patient, the family, and the civilian tries to retrieve information on medicine and medical treatment and to obtain their knowledge, the bibliographic database PubMed, which developed and opened to the public, free of charge on the Internet since 1997 by the United States National Library of Medicine, is now used by the people all over the world. Therefore, because the articles being published in the journal covered in PubMed can be retrieved and read by people all over the world, it can be said that the journal covered in PubMed has a high evaluation in comparison with those not covered in it.

Looking at PubMed provides access to bibliographic information that includes in MEDLINE with Medical Subject Headings (MeSH) terms and in PubMed Central, a free full-text archive of biomedical and life sciences journal literature at the U.S. National Institutes of Health's National Library of Medicine (NIH/NLM).

So far, the analysis how many journals of Japan are covered in PubMed has not been performed in the past, the author revealed that 168 Japanese journals including 157 journals listed in 'Geographic listing' of "List of Journals Indexed for MEDLINE, 2006" were included in PubMed of 2006¹⁻²⁾. After the journals of Japan that are covered in PubMed are perused and reported in 2006¹⁾, as ten years has passed, current investigative results for January 2013 and May 2016 situation will be analysed and reported by comparing with those of ten years ago.

The search items on Japanese journals covered in PubMed are such as; those publisher, language used, publication start year, start year of indexing in PubMed, publication frequency, current indexing status in PubMed, and uploading status to PubMed Central.

Methods

The investigation of the journals of Japan covered in PubMed was executed on May 27, 2016.

First of all, by inputting as Japan[pl] in the query box of PubMed, the articles published in the journals

of which their publication places belonged to Japan are retrieved.

Next, after checking Custom range of Publication dates to limit the publication date, Custom date range was assigned to "from 2013/01/01 to 2016/05/31", the result was listed in ascending order of the journal name by showing "Sort by Journal" and the kind number of Japanese journals was counted from the list of that result.

At the former investigation¹⁾, although the journals of Japan covered in Journals Database of PubMed, now, Journals in NCBI (National Center for Biotechnology Information) Databases was investigated to make sure whether they leaked in PubMed or not, as the result was the same and the number of kinds of journals was not changed, this time the same comparison didn't perform. Although Journals in NCBI Databases has the function limited to Currently indexed in MEDLINE, there is another reason why it didn't compare that what they are covered in PubMed is any more the importance for journals by touching the eyes of people around the world. And, the journals of Japan covered in PubMed were listed and compared with ones of the former list.

Finally, in order to understand the characteristics of them, those publisher, language used, publication start year, start year of indexing in PubMed, publication frequency, current indexing status in PubMed, and uploading status to PubMed Central were searched by using Journals in NCBI Database.

Results

It became a hit by 708,761 articles published in Japanese journals which the publication place of the journal is Japan, when inputting as Japan[pl] in PubMed. Next, it became 54,000 articles when limiting them to the documents assigned to "from 2013/01/01 to 2016/05/31" by the second retrieval. When the journal names published 54,000 articles were permuted alphabetically and the kind number of them was counted 173 journals. In addition to them, by adding three journals such as DNA Research, Journal of Physiological Anthropology, and Journal of Radiation Research, which covered in the former list and leaked

in this time investigation, in total 176 journals were identified in PubMed. The alphabetical list of 176 Japanese journals is shown as the **appendix** at the end.

The thirty nine journals (twenty two percent) of 176 journals published by the publisher in the foreign country consist of the Springer twenty six journals, Elsevier Science five, Oxford University Press (OUP) four, Blackwell and T aylor & Francis each two.

There are 112 journals (sixty four percent) which the language was being written only in English, nineteen journals (eleven percent) being written in both English and Japanese, and forty five journals (twenty five percent) in Japanese only.

Next, the breakdown of Publication Start Year and Indexed Year of 176 Japanese Journals in PubMed are shown in **Table 1**.

From **Table 1**, as regards the publication start year

of 176 journals showing their history, twenty three journals are published before 1945, twenty journals are published between 1946 and 1955, fifteen journals between 1956 and 1965, eleven journals between 1966 and 1975, thirteen journals between 1976 and 1985, thirty three journals between 1986 and 1995, forty two journals between 1996 and 2005, and nineteen journals between 2006 and 2015, respectively.

Next, as regards the start year of indexing of them in PubMed, thirty one journals were indexed before 1965, twenty one journals were indexed between 1966 and 1975, seventeen journals between 1976 and 1985, eighteen journals between 1986 and 1995, forty five journals between 1996 and 2005, and forty four journals between 2006 and 2015, respectively.

Concerning their publication frequency, from **Table 2**, the largest number was forty nine journals published

Table 1. The breakdown of Publication Start Year and Indexed Year of 176 Japanese Journals in PubMed

| | Japanese Journals by Publication Start Year | Cumulative Japanese Journals by Publication Start Year | Japanese Journals by Indexed Year in PubMed | Cumulative Japanese Journals by Indexed Year in PubMed |
|--------------------|---|--|---|--|
| Before 1945 | 23 | 23 | | |
| 1946-1955 | 20 | 43 | | |
| 1956-1965 | 15 | 58 | 31 | 31 |
| 1966-1975 | 11 | 69 | 21 | 52 |
| 1976-1985 | 13 | 82 | 17 | 69 |
| 1986-1995 | 33 | 115 | 18 | 87 |
| 1996-2005 | 42 | 157 | 45 | 132 |
| 2006-2015 | 19 | 176 | 44 | 176 |

Table 2. The Number of Japanese Journals by Publication Frequency indexed in PubMed

| Publication Frequency | No. of Japanese Journals | Percentage | Cumulative Percentage |
|------------------------|--------------------------|------------|-----------------------|
| Bi-Monthly | 49 | 27.8 | 27.8 |
| Quarterly | 48 | 27.3 | 55.1 |
| Monthly | 47 | 26.7 | 81.8 |
| Semi-Annually | 14 | 8.0 | 89.8 |
| Triannually | 6 | 3.4 | 93.2 |
| Annually | 3 | 1.7 | 94.9 |
| 10 times a year | 3 | 1.7 | 96.6 |
| 5 times a year | 1 | 0.6 | 97.2 |
| 8 times a year | 1 | 0.6 | 97.7 |
| 13 times a year | 1 | 0.6 | 98.3 |
| 16 times a year | 1 | 0.6 | 98.9 |
| Irregularly | 1 | 0.6 | 99.4 |
| n.d. | 1 | 0.6 | 100.0 |

by bi-monthly publication frequency, the second, forty eight journals by quarterly, the third, forty seven journals by monthly, the fourth, fourteen journals by semi-annually, the fifth, six journals by triannually, each three journals by annually and ten times a year, each one journals by eight times a year, thirteen times a year, and sixteen times a year, irregularly, and no data, respectively.

As regards current indexing status of 176 Japanese journals in PubMed, 120 journals are indexed for MEDLINE, thirty nine journals for OLDMEDLINE in addition to MEDLINE, and seventeen journals are included as bibliographic data of PubMed, not indexed for MEDLINE.

Discussion

By comparing this time results with the former search results, the number of Japanese journals covered in PubMed were increased from 168 journals to 176 journals. Thirty five Japanese Journals were excluded and forty three journals were covered newly, in addition to eight new journals increase.

The number of Japanese journals published by the publisher in the foreign country was increased by five journals from thirty four journals (twenty percent) in the former research to thirty nine journals (twenty two percent). The breakdown of them, Springer publishes twenty six journals at seven journals increase, Elsevier Science does five journals at two journals increase, Oxford University Press (OUP) four journals at one journal increase, and as a new publisher, Blackwell and Taylor & Francis publish each two Japanese journals.

Concerning the language written, the Japanese journals written only in English is increasing three percent of ten journals, they increased from 102 journals (sixty one percent) in the former research to 112 journals (sixty four percent), The number of Japanese journals being written in both English and Japanese are almost the same, and on the other hand, the number of Japanese journals in Japanese decreased three percent of two journals from forty seven journals (twenty eight percent) to forty five journals (twenty five percent).

As regards the publication start year of 176 journals, from **Table 1**, twenty three journals were published

before 1945, they include Yakugaku Zasshi (Journal of the Pharmaceutical Society of Japan) of inaugural year 1881 and Nippon Ganka Gakkai Zasshi of 1897 first issue. The eighty two journals publish their first issue before thirty years and sixty one journals of almost thirty five percent are started to publish within recent twenty years.

Next, as regards the start year of indexing of them in PubMed, thirty one journals of about eighteen percent are indexed until 1965, eighty nine journals of about fifty percent were covered within recent twenty years.

Concerning their publication frequency, from **Table 2**, top three of publication frequency such as bi-monthly, quarterly, and monthly occupied eighty two percent of 176 journals.

As regards current indexing status of 176 journals in PubMed, 120 journals including all forty five Japanese journals in Japanese are indexed for MEDLINE, thirty nine journals for OLDMEDLINE in addition to MEDLINE, and seventeen journals are not indexed for MEDLINE. But, if researchers submit their manuscripts to those seventeen Japanese journals, given the opportunity which is to be read to the people all over the world, the results is never ignored. And, from this current indexing status investigation, it found that three journals became electronic only journals. Of which, Acta Histochemica et Cytochemica was covered in PubMed of 2006 without indexing for MEDLINE, and its print edition ceased in 2014. Asian Journal of Endoscopic Surgery was covered in PubMed of 2011, indexed for MEDLINE, and its print edition ceased in 2011. And Journal of Arrhythmia was covered in PubMed of 2015, without indexing for MEDLINE, and its print edition ceased in 2014.

Finally, concerning uploading status to PubMed Central, in total thirty two Japanese journals of 176 are uploaded to PubMed Central. Of which fifteen journals are indexed for MEDLINE and the rest seventeen journals are not indexed for MEDLINE. So far, although it is very difficult that new journals will be accepted to index in MEDLINE, it found that uploading a journal to PubMed Central can become an optional tactics easily to be selected for PubMed.

References

- 1) Tonosaki, Masaaki. Investigative Analysis of Japanese journals indexed in PubMed for recent three years. *Online Kensaku* 27(2): 95-105, 2006.
- 2) Tonosaki, Masaaki. Participation Report to the International Workshop and the Hungarian Medical Library Association Annual Meeting held in Barcelona and Budapest in 2005. (Japanese) *Igaku Toshokan* 2006; 53(2): 179-188.

Appendix:

The alphabetical list of Japanese journals covered in PubMed between January 2013 and May 2016

* = the journals not included in the list of the former report.

+ = the journals uploaded to PubMed Central

- 1) *Acta histochemica et cytochemica**⁺
- 2) *Acta medica Okayama*
- 3) *Allergology international: official journal of the Japanese Society of Allergology**
- 4) *Analytical sciences: the international journal of the Japan Society for Analytical Chemistry*
- 5) *Anatomical science international: Nihon Kaibo Gakkai*
- 6) *Annals of nuclear medicine*
- 7) *Annals of thoracic and cardiovascular surgery*
- 8) *Annals of vascular diseases**⁺
- 9) *Arerugi* = [Allergy]
- 10) *Asian journal of endoscopic surgery**
- 11) *Biocontrol science*
- 12) *Biological & pharmaceutical bulletin*
- 13) *ABiomedicalResearch*
- 14) *Bioscience of microbiota, food and health**⁺
- 15) *Bioscience trends**
- 16) *Bioscience, biotechnology, and biochemistry*
- 17) *Brain and nerve* = *Shinkei kenkyu no shinpo**
- 18) *Brain tumor pathology*
- 19) *Breast cancer: journal of Japanese Breast Cancer Society*⁺
- 20) *Breed Science**
- 21) *Bulletin of Tokyo Dental College*
- 22) *Cardiovascular intervention and therapeutics**
- 23) *Cell structure and function*
- 24) *Chemical & pharmaceutical bulletin*
- 25) *Chudoku kenkyu* : Japanese journal of toxicology
- 26) *Circulation journal*
- 27) *Clinical and experimental nephrology*
- 28) *Clinical calcium*
- 29) *Clinical journal of gastroenterology**
- 30) *Clinical pediatric endocrinology: case reports and clinical investigations**⁺
- 31) *Dental materials journal*
- 32) *Development, growth & differentiation*
- 33) *DNA research*⁺
- 34) *Drug discoveries & therapeutics**
- 35) *Endocrine journal*
- 36) *Environmental health and preventive medicine**⁺
- 37) *Experimental animals*⁺
- 38) *Food and nutrition bulletin*
- 39) *Fukuoka Igaku Zasshi*
- 40) *Fukushima journal of medical science*
- 41) *Gan To Kagaku Ryoho. Cancer & chemotherapy*
- 42) *Gastric Cancer: official journal of the International Gastric Cancer Association and the Japanese Gastric Cancer Association*
- 43) *General thoracic and cardiovascular surgery**
- 44) *Genes & genetic systems*
- 45) *Geriatrics & gerontology international**
- 46) *Heart and vessels*
- 47) *Hinyokika Kiyō*
- 48) *Hiroshima journal of medical sciences*
- 49) *Hokkaido Igaku Zasshi: Hokkaido journal of medical science*
- 50) *Human Cell*
- 51) *Igaku Butsuri: an official Journal of Japan Society of Medical Physics*
- 52) *Industrial health*⁺
- 53) *Internal medicine*
- 54) *International heart journal*

- 55) International journal of clinical oncology
- 56) International journal of hematology*
- 57) Intractable & rare diseases research**
- 58) Japan journal of nursing science: JJNS*
- 59) Japan Medical Association journal: JMAJ**
- 60) Japanese journal of antibiotics
- 61) Japanese journal of infectious diseases
- 62) Japanese journal of ophthalmology
- 63) Japanese journal of radiology*
- 64) Japanese journal of veterinary research
- 65) Japan-hospitals: the journal of the Japan Hospital Association*
- 66) Journal of anesthesia
- 67) Journal of antibiotics (Tokyo)
- 68) Journal of arrhythmia**
- 69) Journal of artificial organs: official Journal of Japanese Society for Artificial Organs
- 70) Journal of atherosclerosis and thrombosis
- 71) Journal of bioscience and bioengineering
- 72) Journal of bone and mineral metabolism
- 73) Journal of clinical and experimental hematopathology: JCEH*
- 74) Journal of clinical biochemistry and nutrition**
- 75) Journal of diabetes investigation**
- 76) Journal of echocardiography*
- 77) Journal of epidemiology+
- 78) Journal of equine science/Japanese Society of Equine Science**
- 79) Journal of gastroenterology
- 80) Journal of general and applied microbiology
- 81) Journal of hepato-biliary-pancreatic sciences
- 82) Journal of human ergology
- 83) Journal of infection and chemotherapy: official journal of the Japan Society of Chemotherapy
- 84) Journal of medical and dental sciences
- 85) Journal of medical investigation: JMI
- 86) Journal of medical ultrasonics (2001)*
- 87) Journal of natural medicines*
- 88) Journal of Nippon Medical School
- 89) Journal of nutritional science and vitaminology
- 90) Journal of occupational health
- 91) Journal of oleo science*
- 92) Journal of oral science
- 93) Journal of orthopaedic science
- 94) Journal of pharmacological sciences
- 95) Journal of physical therapy science**
- 96) Journal of physiological anthropology+
- 97) Journal of physiological sciences: JPS
- 98) Journal of plant research
- 99) Journal of radiation research+
- 100) Journal of reproduction and development+
- 101) Journal of rural medicine: JRM**
- 102) Journal of smooth muscle research
- 103) Journal of the Japanese Physical Therapy Association = Rigaku ryoho**
- 104) Journal of toxicologic pathology**
- 105) Journal of toxicological sciences
- 106) Journal of UOEH
- 107) Journal of veterinary medical science+
- 108) Kagakushi Kenkyu
- 109) Kaibogaku Zasshi
- 110) Kaku Igaku
- 111) Kansenshogaku Zasshi
- 112) Keio Journal of Medicine
- 113) Kekkaku
- 114) Kobe journal of medical sciences
- 115) Kokubyo Gakkai Zasshi
- 116) Kokuritsu Iyakuin Shokuhin Eisei Kenkyusho Hokoku
- 117) Kurume Medical Journal
- 118) Kyobu Geka. The Japanese journal of thoracic surgery
- 119) Laser therapy**
- 120) Magnetic resonance in medical sciences: MRMS
- 121) Mass Spectrometry (Tokyo)**
- 122) Masui. The Japanese journal of anesthesiology
- 123) Medical molecular morphology
- 124) Medical mycology journal*
- 125) Microbes and environments/JSME**
- 126) Microscopy(Oxford, England)*
- 127) Modern rheumatology/Japan Rheumatism Association
- 128) Nagoya journal of medical science+
- 129) Neurologia medico-chirurgica+
- 130) Nihon Arukoru Yakubutsu Igakkai Zasshi
- 131) Nihon Eiseigaku Zasshi. Japanese journal of hygiene
- 132) Nihon Geka Gakkai Zasshi
- 133) Nihon Hansenbyo Gakkai Zasshi= Japanese journal of leprosy : official organ of the Japanese Leprosy Association
- 134) Nihon Hinyokika Gakkai Zasshi. The Japanese journal

- of urology
- 135) Nihon Hoigaku Zasshi= The Japanese journal of legal medicine
- 136) Nihon Hoshasen Gijutsu Gakkai Zasshi
- 137) Nihon Ishigaku Zasshi. [Journal of Japanese history of medicine]
- 138) Nihon Jibiinkoka Gakkai Kaiho
- 139) Nihon Jinzo Gakkai Shi
- 140) Nihon Koshu Eisei Zasshi
- 141) Nihon Naika Gakkai Zasshi. The Journal of the Japanese Society of Internal Medicine
- 142) Nihon Rinsho
- 143) Nihon Rinsho Meneki Gakkai Kaishi = Japanese journal of clinical immunology
- 144) Nihon Ronen Igakkai Zasshi
- 145) Nihon Saikingaku Zasshi. Japanese journal of bacteriology
- 146) Nihon Seirigaku Zasshi. Journal of the Physiological Society of Japan
- 147) Nihon Shinkei Seishin Yakurigaku Zasshi = Japanese journal of psychopharmacology
- 148) Nihon Shokakibyō Gakkai Zasshi = The Japanese journal of gastro-enterology
- 149) Nihon Yakurigaku Zasshi. Folia pharmacologica Japonica
- 150) Nippon Ganka Gakkai Zasshi
- 151) No Shinkei Geka. Neurological surgery
- 152) No To Hattatsu. Brain and development
- 153) Odontology: the Society of the Nippon Dental University
- 154) Okajimas folia anatomica Japonica
- 155) Osaka city medical journal
- 156) Plant & cell physiology
- 157) Primates : journal of primatology
- 158) Proceedings of the Japan Academy. Series B, Physical and biological sciences*⁺
- 159) Radiological physics and technology*
- 160) Rinsho Biseibutshu Jinsoku Shindan Kenkyukai Shi = JARMAM: Journal of the Association for Rapid Method and Automation in Microbiology
- 161) Rinsho Byori. The Japanese journal of clinical pathology
- 162) Rinsho Ketsueki: The Japanese journal of clinical hematology
- 163) Rinsho Shinkeigaku = Clinical neurology
- 164) Sangyo Eiseigaku Zasshi = Journal of occupational health
- 165) Seikagaku. The Journal of Japanese Biochemical Society
- 166) Seishin Shinkeigaku Zasshi = Psychiatria et neurologia Japonica
- 167) Shinrigaku Kenkyu: The Japanese journal of psychology
- 168) Shokuhin Eiseigaku Zasshi. Journal of the Food Hygienic Society of Japan
- 169) Surgery Today
- 170) Tohoku journal of experimental medicine
- 171) Tokai journal of experimental and clinical medicine
- 172) Tropical medicine and health*⁺
- 173) Uirusu
- 174) Yakugaku Zasshi: Journal of the Pharmaceutical Society of Japan
- 175) Yonago Acta Medica*⁺
- 176) Zoological science