

# AMERICAN JOURNAL OF DERMATOPATHOLOGY (2005-14) : A BIBLIOMETRIC ANALYSIS

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**Abstract:** This paper gives the Bibliometric analysis of the articles published in the *American Journal of Dermatopathology* during 2005 to 2014. The researcher has tried level best to find out the total number of contributions, distributions in different volumes, authorship pattern and authors' productivity, degree of collaboration and length of papers. As far as concerned to the major findings, it has been found that total 721 authors have contributed 1651 articles during the year 2005 to 2014.

**Keywords:** Bibliometrics, Authorship Pattern, Scientometrics, Citation Analysis, American Journal of Dermatopathology.

## 1.0 Introduction

Bibliometrics is the study where quantitative methods were used to probe scientific communication process by measuring and analyzing various aspects of written documents. This paper studies the Bibliometric Analysis of the literature published in the American Journal of Dermatopathology. Bibliometrics is an emerging thrust area of research from different branches of human knowledge. Bibliometrics has become a standard tool of science policy and research management in the last decades.

Scientometrics is the study of the qualitative aspect of science as a discipline of economic activity. Scientometric is a branch of science. It is mainly used for the study of all aspect of subject in Library and Information Science(LIS). It provide an opportunity to researcher to publish their article with new methods and new ideas. Scientific research has been growing faster during the recent days. Modern scientometrics study is mostly based on the work of [Derek J. de Solla Price](#) and [Eugene Garfield](#). Scientometric tool can be used to measure the research of institutes, journals, specific research topics. These studies are also useful to understand the evolution of literature.

The American Journal of Dermatopathology is highly helpful in the field of dermatology and pathology. Dermatology is a branch of medicine dealing with skin, nails, hairs and its related discipline. It is a specialty for both medicine and surgical aspect. A dermatologist treat disease related problems like skin, scalp, hair and nails.

Pathology is the study of disease, It is a branch of medicine which deals with the laboratory examination of samples of body tissue for diagnostic or forensic purposes.

## 2.0 Source Journal

*The American Journal of Dermatopathology (AJD)* is the official publication of International Society of Dermatopathology (ISDP) and is being published since 1979. In the Beginning the Journal was published Quarterly. But today the journal is publishing monthly. The journal is indexed with different indexing agencies like CNKI (China National Knowledge Infrastructure), Compendex, Caspur, DOAJ, EBSCO Publishing's Electronic Databases, Expanded Academic ASAP, Hinari, Index Copernicus, Journal Citation Reports, National Science Library, OpenJGate, PrimoCentral, ProQuest, Science Citation Index, Scimago Journal Ranking, Genamics JournalSeek, Google Scholar, SCOLAR, SCOPUS, SIIC databases, Summon by Serial Solutions, TechXtra, Ulrich's International Periodical Directory, Web of Science. This Journal mainly cover the subject Dermatology, Pathology and its related discipline.

## 3.0 Literature Review

The term Bibliometrics and Scientometrics were used simultaneously introduced by Pritchard, Nalimov and Mulchenko in 1969. A large number of studies already have been done in this field during the last two decade to evaluate the research productivity of science discipline journal in the term of author productivity, growth of literature.

A Bibliometric study has been done by Vijay, K. R.& Raghavan, I.in 2007 about the Journal of Food Science & Technology published during the year 2000–2004.In his study they found that above 93% of contributions were by multiple authors. Journal is popular among the research scholars. The contribution of African and South American nation was important.2

A Scientometric Analysis on Indian Journal of Physics was done by Nattar, S. During the year 2004 –2008. In his study he found that the year 2004 records the highest 28.71% of contributions of articles.In India Karnatka state was the maximum number of articles. India gives priority for research when compared to other country. It shows that contribution of Indian author was much better than foreign authors.3

Manoj Kumar and Moorthy A L (2011) studied the journal of DJLITduring the year 2001-2010 bibliometrically. They analysis various parameters like growth pattern of journal, content coverage, authorship patterns, subject-wise distribution of articles etc.The number of paper published increased substantially. The majority of papers from single author out of total author.4

Kalyane V L and Sen B K [5] carried out the study on the Journal of Oilseeds Research published during 1984 – 1992 that the journal is poor in quality, lack of dedicated workers to run the journal.The Journal lack of foreign contributions. Poor subscription and lack of foreign contributions in editorial team.Impact factor of agriculture journals is very low than other Indian journals.

Sanni S A and Zainab A N [6] find out the study published in Medical Journal of Malaysia during 2004 –2008 that maximum contributions were given by Malaysian authors. foreign authors contribution is very poor. There is no member from foreign in editorial and reviewing board. MJM impact factor in Scopus is 0.039 in 2010 and H index is highest 13 when compared to other Malaysian journals.

#### **4.0 Objectives**

1. To find out the volume-wise distribution of contributions.
2. To find out the authorship pattern of contributions.
3. To find out the average number of contributions.
4. Authorship pattern of paper published.
5. To find out the growth of literature during a fixed period
6. Author productivity.
7. To calculate the Degree of collaboration.
8. To Study the length of papers.

#### **5.0 Methodology**

For that study, *The American Journal of Dermatopathology* has been taken as a source journal. Seventy six issues of ten volumes from 2005 to 2014 (Vol. 27-36) have been taken for the study. The data for the study have been downloaded from the ovid.sp.com database. 1651 papers selected for the present study were entered into a Microsoft Excel worksheet for analyzing the variables such as author, collaboration of Authors, year of publication. Finally, all relevant data were sorted, tabulated and assimilated in a logical order to find the appropriate result.

**6.0 Data Analysis and Interpretation****Table.1: Distribution of contributions (Volume- Wise)**

Year	Vol. No	No. of Issues	No. of Articles	%age
2005	27	6	138	8.35
2006	28	6	149	9.02
2007	29	6	138	8.35
2008	30	6	151	9.15
2009	31	8	176	10.66
2010	32	8	188	11.39
2011	33	8	171	10.36
2012	34	8	170	10.30
2013	35	8	168	10.18
2014	36	12	202	12.24
<b>Total</b>		<b>76</b>	<b>1651</b>	<b>100</b>

The above table 1 shows that the total number of 1651 articles published during the year from 2005 to 2014. It also shows that out of 1651 articles, maximum 202 articles published/contributed in the year 2014 (12.24%). The increase in number of articles except that in 2007, 2011, 2012 and 2013. The 1651 article were published during the period of 2005 to 2014. The journal is published 10% article per year on an average.

**Table 2 Distribution of Articles (Year & Issue-wise)**

	Year & Vol. No.										Total
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
<b>Months</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	
January										13	13
February	17	21	24	24	24	25	21	18	27	20	221
March										21	21
April	25	19	24	29	20	18	19	22	30	17	223
May					20	21	19	23	21	20	124
June	22	55	22	24	20	25	19	18	27	17	249
July					26	26	17	20	17	13	119
Aug	28	22	25	20	18	22	25	27	15	16	218
Sep										16	16
Oct	16	17	21	26	21	24	26	24	10	18	203
Nov										16	16
Dec	30	15	22	28	27	27	25	18	21	15	228
<b>Total</b>	<b>138</b>	<b>149</b>	<b>138</b>	<b>151</b>	<b>176</b>	<b>188</b>	<b>171</b>	<b>170</b>	<b>168</b>	<b>202</b>	<b>1651</b>

The table 2 represent the distribution of articles (Year & issue-wise). The Journal was published bi-monthly in the year 2005 to 2008, during 2009 to 2013 it publishes eight issues in a year and afterwards its frequency is monthly. Volume No.36 shows the highest number of contributions. Next to volume no. 36, the distribution of contributions was more in volume no. 32. The lowest number of article is Vol. No. 27 & 29 with 138 article each.

**Table 3: Authorship pattern of contributions- year wise**

Authorship	Year										Total	%
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
Single	29	25	21	19	25	15	18	11	15	2	180	10.9
Joint	109	124	117	132	151	173	153	159	153	200	1471	89.1
<b>Total</b>	<b>138</b>	<b>149</b>	<b>138</b>	<b>151</b>	<b>176</b>	<b>188</b>	<b>171</b>	<b>170</b>	<b>168</b>	<b>202</b>	<b>1651</b>	<b>100</b>

The above table 3 shows that out of total 1651 articles; single author contribution is 180 (10.9%) articles whereas the joint author contribution is 1471 (89.1%) articles.

**Table 4: Degree of Collaboration**

Year	Single Author	Joint Author	Degree of Collaboration
2005	29	109	0.78
2006	25	124	0.83
2007	21	117	0.84
2008	19	132	0.87
2009	25	151	0.85
2010	15	173	0.92
2011	18	153	0.89
2012	11	159	0.93
2013	15	153	0.91
2014	02	200	0.99
	180	1471	0.88

The table 4 shows that single authored papers is less than the multiple- authored papers. To determine the extent of collaboration in quantitative terms, Degree of Collaboration (DC), the following formula given by K. Subramanyam [7] has been employed. The degree of collaboration ranges from 0.78 to 0.99. The average degree of collaboration is 0.88.

$$C = \frac{NM}{NM + NS}$$

Where, C = Degree of Collaboration

$N_m$  = Number of Multiple Authors

$N_s$  = Number of Single Authors

In the present study

NM = 1471

NS = 180

Thus C = 0.88

**Table 5: Author Productivity**

Year	Total Articles	Total Authors	AAPP	PPA
2005	138	471	3.41	0.29
2006	149	527	3.54	0.28
2007	138	494	3.58	0.28
2008	151	582	3.85	0.26
2009	176	725	4.11	0.24
2010	188	801	4.26	0.23
2011	171	740	4.33	0.23
2012	170	725	4.26	0.23
2013	168	742	4.42	0.23
2014	202	875	4.33	0.23
<b>Total</b>	<b>1651</b>	<b>6682</b>	<b>4.05</b>	<b>0.25</b>

Table 5 present the data related to author productivity which indicates that the total average number of author per paper is 4.05. The average productivity of per author is 0.25 during the period under study. The formulas of average were used as per given below.

Average author per paper=No. of author/No. of paper

Productivity per author=No.of papers/No. of authors

**Table 6: Distribution of Pages**

Year	No. of Articles	Avg. No. of Articles per Vol.	No. of Pages	Avg. No. of pages per Article
2005	138	13.8	551	3.99
2006	149	14.9	548	3.67
2007	138	13.8	604	4.37
2008	151	15.1	647	4.28
2009	176	17.6	859	4.88
2010	188	18.8	861	4.57
2011	171	17.1	874	5.11
2012	170	17.0	855	5.02
2013	168	16.8	873	5.19
2014	202	20.2	1010	5.00
<b>Total</b>	<b>1651</b>	<b>16.51</b>	<b>7682</b>	<b>4.65</b>

The above table no 6 shows that 1651 papers were published in total number of 7682 pages, average 4.65 pages per articles were used during the study year 2005 to 2014. It is found that the average length of the articles varied from a

minimum of 3.99 pages to a maximum of 5.00 pages. We found that in the year 2013 has highest average page per article with 5.19 pages, while in the year 2006 has the lowest average page per article with 3.67.

### **7.0 Conclusion**

It is found from the study conducted that the Bibliometrics Study is reliable and practical method to provide an accurate information about any research. Bibliometric study has been increasingly for last few years. The maximum papers were published in 2014 and minimum in 2005 & 2007. The degree of collaboration is 0.88. The author productivity is 0.25 and the average authors per paper is 4.05. This shows that the majority of papers have been co-authored. The highest numbers of publications have been contributed in Volume No. 36 (2014). The regular increasing growth of publication of articles, contribution of authors has been noticed.

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