

Academic Footprint of Journal of Orthopedic Case Reports in the Past 5 Years – A Scientometric Analysis

Sathish Muthu^{1,2,3}, Saravanan Annamalai⁴

Learning Point of the Article:

This editorial analyses the track record of the Journal of Orthopedic Case Reports in the field of Orthopaedics in the past 5 years through a scientometric analysis of literature.

Introduction

Patient outcomes have been enhanced every day due to significant research, advances in clinical methods, and insights presented in case reports, which numerous contemporary journals now publish [1]. The significance of accessing these case reports in our evolving and dynamic world remains acknowledged [2]. While case reports might sometimes be overshadowed by more comprehensive, evidence-backed publications, their impact has been profound [3]. Sharing such reliable information has catalyzed breakthroughs and the development of treatments for new diseases [4]. This practice of sharing experiential insights has evolved into a respected academic publication mode, efficiently disseminating knowledge to the broader medical community. The Journal of Orthopedic Case Reports (JOCR) is an international, online, scientific, peer-reviewed, monthly journal that started out publishing high-quality articles in 2011 [5]. The journal is the official publication of the Indian Orthopedic Research Group. The journal is indexed in various journal indexing databases including the Directory of Open Access Journals, Index Copernicus, PubMed Central, and so on. The articles published are under the terms of the Creative Commons Attribution-Noncommercial-ShareAlike 4.0 License [6]. In this article, the academic impact of the journal in the past 5 years has been

analyzed. The scientometric analysis was performed using the metadata of the articles published in the journal and indexed in PubMed Central over the past 5 years (2018-2022). Visualization of the data is made using VOSviewer (version 1.6.19) software [7].

Publication volume

The journal published 1127 articles between 2018 and 2022. The journal experienced 2 times growth in the number of publications with 155 articles in the 6 issues in Volume 8 of 2018 to 302 articles in the 12 issues in Volume 12 of 2022 as shown in Fig. 1.

Author network

Of the 1127 analyzed articles with 3514 authors, the top contributors were Dr. Neetin Mahajan (n = 22), followed by Dr. Pranay Kondewar (n = 15) and Dr. Amit Kumar Yadav (n = 15). The network visualization of the top contributing authors is presented in Fig. 3.

Institutional network

Of the 1127 analyzed articles, the top contributors were from Grant Government Medical College and Hospital, Mumbai (n =

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Dr. Sathish Muthu



Dr. Saravanan Annamalai

¹Orthopaedic Research Group, Coimbatore, Tamil Nadu, India,

²Department of Biotechnology, Faculty of Engineering, Karpagam Academy of Higher Education, Coimbatore, Tamil Nadu, India,

³Department of Orthopaedics, Government Medical College, Karur, Tamil Nadu, India,

⁴Department of Orthopaedics, Thiruvallur Medical College, Thiruvallur, Tamil Nadu, India.

Address of Correspondence:

Dr. Sathish Muthu,
Orthopaedic Research Group, Coimbatore, Tamil Nadu, India.
E-mail: drsathishmuthu@gmail.com

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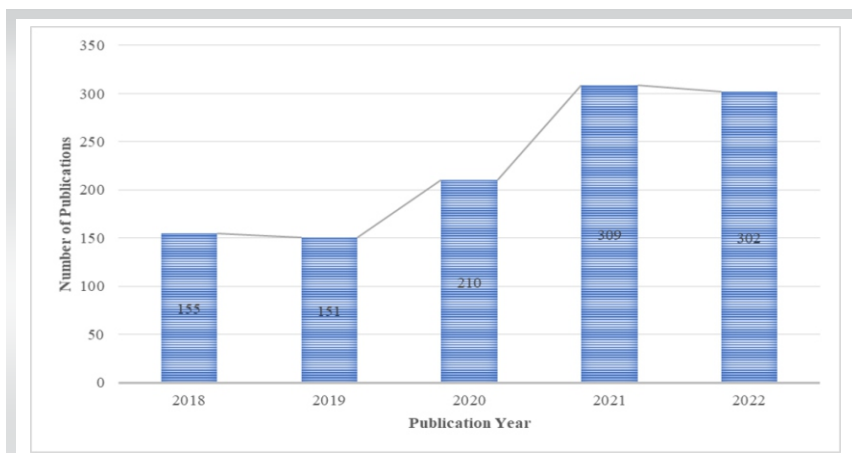


Figure 1: Trend of growth in the number of publications in the past 5 years.

21) followed by Seth Gordhandas Sunderdas Medical College and King Edward Memorial Hospital, Mumbai ($n = 17$) and Orthopedic Research Group, Coimbatore ($n = 8$) [8]. The density visualization of the top contributors is presented in Fig. 3. We noted that significant contributions to the journal were from Indian institutions and the journal lacks comparable contributions from international institutions.

Keyword analysis

On analyzing the 3054 keywords used in the included articles, the top keyword used was arthroscopy ($n = 26$) followed by fracture ($n = 23$) and giant cell tumor ($n = 23$). The network visualization of the top keywords used is presented in Fig. 4.

Cluster analysis

The keywords in the included articles were clusters based on their subject categorization algorithm of VOS viewer and we noted that the top clusters were as follows: #1 miscellaneous, #2

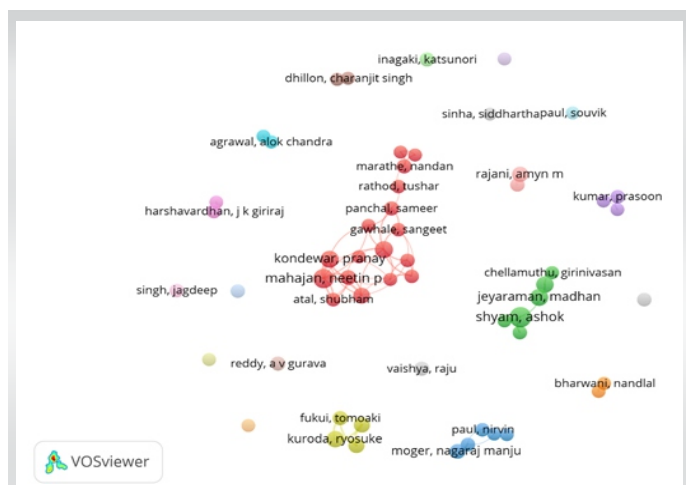


Figure 2: Network visualization of the top contributing authors in the past 5 years.

tumor, #3 fractures, #4 arthroplasty, and #5 complications. The network of the included clusters is represented in Fig. 5.

Publication trend analysis

On analyzing the timeline of the keywords network among the top clusters, we noted that the recent publication trends revolved around the research domains such as arthroscopy, especially involving its complications; fractures, especially involving their reduction methods and complications; arthroplasty, especially in rare disease scenarios such as alkaptonuria, giant cell tumors along with its complications as shown in Fig. 6.

Discussion

Case reports provide clinicians, especially trainees and junior doctors, with real-world clinical scenarios to learn from. They contribute to the broader medical literature by documenting cases that might not be studied in larger clinical trials or cohort studies [9]. By highlighting unique cases or new treatment techniques, they can influence clinical practice or suggest areas for further research. Case reports are often the first line of evidence for extremely rare clinical situations or outcomes. Some case reports might bring forth observations that can lead to the formulation of new hypotheses for future research. It is important to note that while case reports are valuable for the reasons listed above, they represent the lowest level of evidence in the hierarchy of clinical evidence [10]. This is because they usually describe individuals or a very small number of patients, making it difficult to generalize their findings to the larger population. However, their contribution to the field in terms of educational value and highlighting rare or novel scenarios is undeniable. We demonstrated that the journal has been growing in time with appropriate publication standards as per the COPE guidelines [11].

The main aim of any orthopedic case report journal is to provide a platform for clinicians and researchers to share unique, rare, or challenging cases; they have encountered in their practice which helps the readers to enhance their clinical understanding and to expand the clinical spectrum of known orthopedic conditions [12]. The JOCR has been shown to cover a wide range of orthopedic spectrum which includes trauma, joint replacement, sports medicine, pediatric orthopedics, spine, hand and upper limb, foot and ankle, tumors, arthroscopy, and reconstructive surgeries among others. It has published the presentation of new surgical

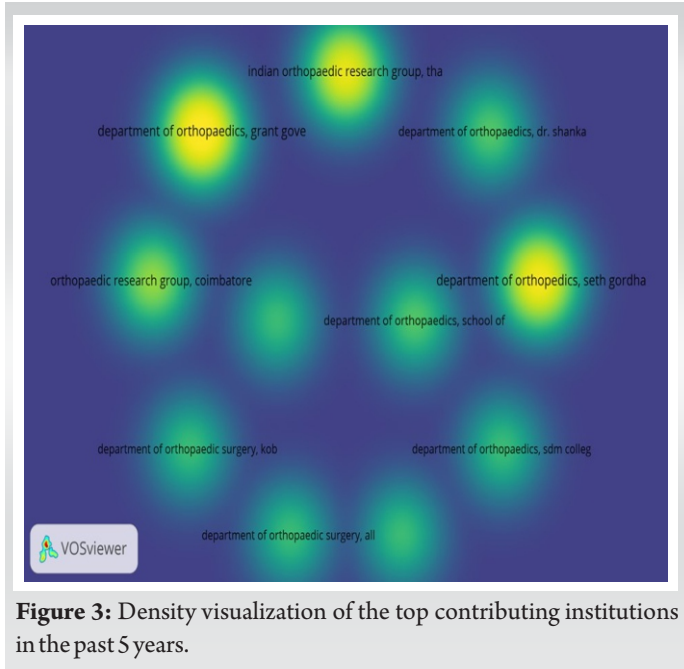


Figure 3: Density visualization of the top contributing institutions in the past 5 years.

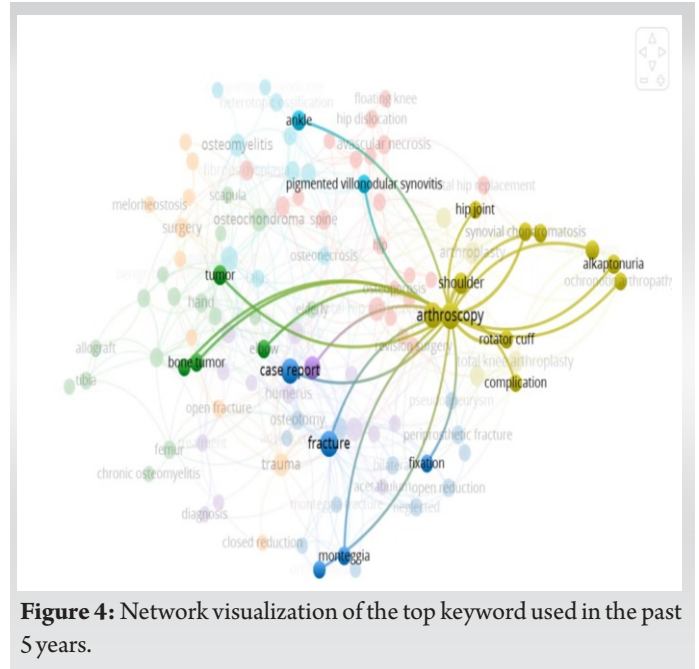


Figure 4: Network visualization of the top keyword used in the past 5 years.

techniques or modifications of existing ones. Further, the description of unexpected complications noted with the routine interventions was shown to be the recent focus. Some publications discuss diagnostic challenges, management dilemmas, or innovative treatment modalities.

Despite all the noted findings, the journal lacks certain publication process metrics noted in other journals such as mean time to first decision, mean time to final decision, and acceptance rate of the journal. The journal may also aim for indexing in other databases such as Web of Science to make an in-depth analysis of the citation metrics.

Conclusion

We demonstrated that the JOCR has been growing in time with appropriate publication standards as per the COPE guidelines with robust author and institution network coverage at the national level. The journal has a wide spectrum of published articles covering various domains of orthopedics to meet the aims and scope of the journal.

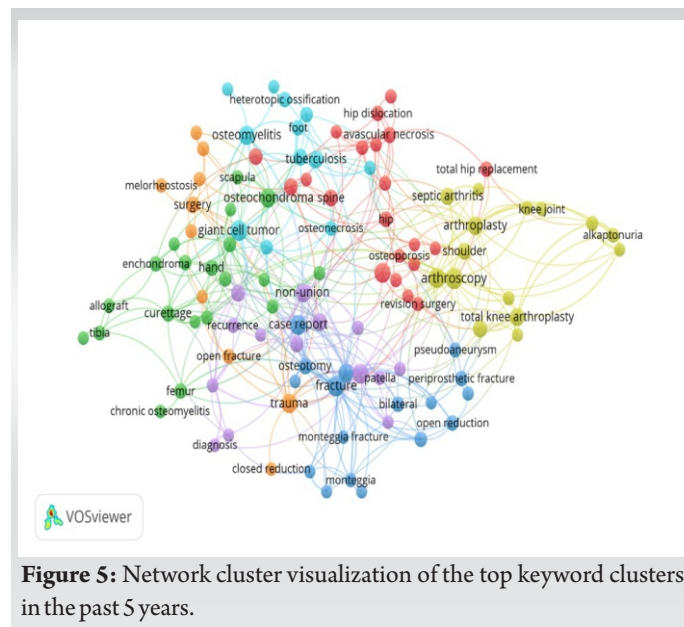


Figure 5: Network cluster visualization of the top keyword clusters in the past 5 years.

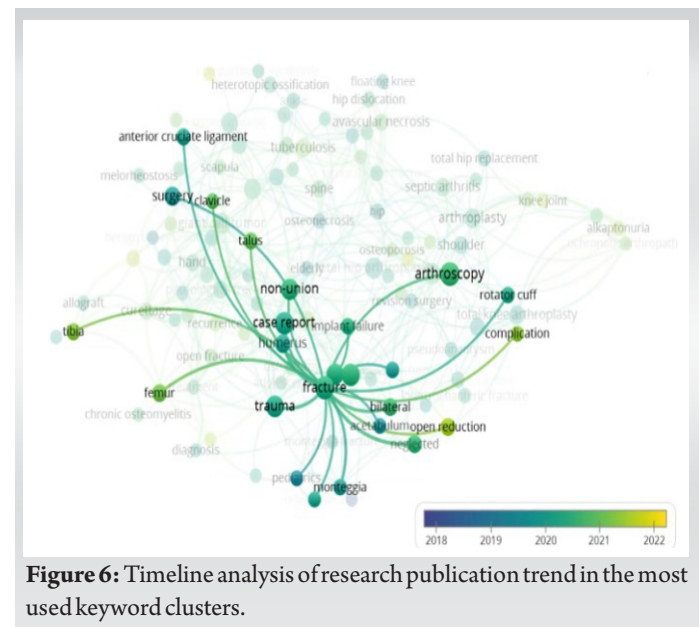


Figure 6: Timeline analysis of research publication trend in the most used keyword clusters.

Declaration of patient consent: The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given the consent for his/ her images and other clinical information to be reported in the journal. The patient understands that his/ her names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Conflict of interest: Nil **Source of support:** None

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