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Análise da produção científica acerca da temática radiodermatite: estudo bibliométrico

Analysis of scientific production on the subject of radiodermatitis: bibliometric study

Análisis de la producción científica sobre el tema de radiodermatitis: estudio bibliométrico

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RESUMO

Objetivo: analisar artigos científicos sobre radiodermatite publicados na Scopus. **Método:** pesquisa bibliométrica, com abordagem qualitativa. A busca foi realizada no mês de março de 2023, na base de dados Scopus. O descritor utilizado foi "Radiodermatite". Os dados foram tratados a partir de estatística descritiva, com uso do software bibliometrix. **Resultados:** identificaram-se 388 documentos, publicados em 259 periódicos, entre 1918 e 2023. Predominou documentos de autoria única (n=110), artigos originais (n=224), da área do conhecimento da medicina (n=344; 89%), no idioma inglês (n=216; 56%), oriundos dos Estados Unidos da América (n=52; 13%). Os periódicos Bulletin de La Société Française de Dermatologie et de Syphiligraphie (n=8; 2,1%) e Annales de Dermatologie et de Venereologie (n=7; 1,8%) representam os que mais publicam sobre a temática. **Conclusão:** esta revisão apresentou um corpus robusto acerca do tema radiodermatite, com indicadores que podem subsidiar o planejamento e condução de novas pesquisas na área.

Descritores: Radiodermatite; Neoplasias; Bibliometria; Enfermagem.

ABSTRACT

Objective: to analyze scientific articles on radiodermatitis published in Scopus. **Method:** bibliometric research, with a qualitative approach. The search was carried out in March 2023, in the Scopus database. The descriptor used was "Radiodermatitis". The data were processed using descriptive statistics, using the bibliometrix software. **Results:** 388 documents were identified, published in 259 journals, between 1918 and 2023. Single-author documents (n=110), original articles (n=224), in the area of medical knowledge (n=344; 89%) predominated.), in the English language (n=216; 56%), from the United States of America (n=52; 13%). The journals Bulletin de La Société Française de Dermatologie et de Syphiligraphie (n=8; 2.1%) and Annales de Dermatologie et de Venereologie (n=7; 1.8%) represent those that publish the most on the

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subject. **Conclusion:** this review presented a robust corpus on the topic of radiodermatitis, with indicators that can support the planning and conduct of new research in the area.

Descriptors: Radiodermatitis; Neoplasms; Bibliometrics; Nursing.

RESUMEN

Objetivo: analizar artículos científicos sobre radiodermatitis publicados en Scopus. **Método:** investigación bibliométrica, con enfoque cualitativo. La búsqueda se realizó en marzo de 2023, en la base de datos Scopus. El descriptor utilizado fue "Radiodermatitis". Los datos fueron procesados mediante estadística descriptiva, utilizando el software bibliometrix. **Resultados:** Se identificaron 388 documentos, publicados en 259 revistas, entre 1918 y 2023. Documentos de un solo autor (n=110), artículos originales (n=224), en el área del conocimiento médico (n=344; 89%) predominó.), en idioma inglés (n=216; 56%), de Estados Unidos de América (n=52; 13%). Las revistas Bulletin de La Société Française de Dermatologie et de Syphiligraphie (n=8; 2,1%) y Annales de Dermatologie et de Venereologie (n=7; 1,8%) son las que más publican sobre el tema. **Conclusión:** esta revisión presentó un corpus robusto sobre el tema de radiodermatitis, con indicadores que pueden apoyar la planificación y realización de nuevas investigaciones en el área.

Descriptores: Radiodermatitis; Neoplasias; Bibliometría; Enfermería.

INTRODUCTION

Radiodermatitis is an adverse event caused by exposure to ionizing radiation, which can cause skin lesions. It is estimated that around 95% to 100% of individuals undergoing radiotherapy treatment are affected by this condition (Bontempo et al., 2021). The clinical manifestations caused are characterized by erythema, oedema, changes in skin pigmentation, itching, dry or wet peeling, hair loss, decreased sweating, ulceration, bleeding and, in more serious cases, tissue necrosis. As a result of repeated exposure of the basal cells, the skin is unable to maintain optimal renewal of the epidermis, causing radiodermatitis. It can also be acute, when it appears within three months of starting treatment, or late, after three months of treatment (Wolf; Hong, 2022).

In this context, there are factors that predispose to radiodermatitis, such as those related to the type of device and technique used for treatment, the dose of radiation received and the use of boluses (used to optimize the dose of radiation in the area to be treated) (Cardozo et al., 2020; Costa et al., 2019; Salvajoli; Souhami; Faria, 2023). There are also factors related to the individual's physical and clinical characteristics, such as breast size, advanced age, malnutrition or obesity, diabetes mellitus, hypertension and kidney failure (Cardozo et al., 2020; Wolf; Hong, 2020).

Radiodermatitis can be assessed using scales; the most widely used are those proposed by the Radiation Therapy Oncology Group (RTOG) and the Common Terminology Criteria for Adverse Events (CTCAE) (WANG et al., 2020). These instruments score the signs and symptoms presented on the skin on a scale ranging from zero (no signs and symptoms) to five (death of the patient due to the severity of the lesions). However, they have some disadvantages in their use, since they group signs of different severity and intensity in the same scale, which could lead the evaluator to make a mistake when proposing an intervention. They also lack an item that includes the patient's report (Bontempo et al., 2021).

Radiodermatitis is prevented through self-care actions, such as: proper hygiene of the irradiated area, plenty of oral hydration, not exposing yourself to the sun or any other heat source, not using products that contain alcohol, among others. Topical moisturizing with a water-soluble product is also recommended (Gosselin et al., 2020). Therapy should be proposed according to the assessment of the lesions, i.e. according to the grade. As a rule, the therapeutic approach can range from the use of topical medication based on corticosteroids or 1% silver sulfadiazine, to temporary or permanent suspension of treatment (Viana et al., 2021; Wolf; Hong, 2020).

Thus, radiodermatitis is characterized as an expected event of radiotherapy treatment, so it requires a multidisciplinary approach in order to avoid or minimize it. In this respect, one of the nurses' duties in radiotherapy services is to participate in the organization and implementation of protocols for the prevention and care of adverse reactions caused by such therapy (COFEN, 1998).

In view of the above, knowing the scientific productions of the different areas of knowledge about radiodermatitis is an important strategy for the technical and scientific knowledge of the area and, in particular, as support for the care provided by nurses. Such an approach is pertinent to clinical practice, so that this category can base its work with propriety and scientificity, providing personalized and safe care in the different contexts of practice. In addition, it will contribute to the production of science in the field of nursing as a whole.

In this study, the question that guided the retrieval of information from the Scopus database was: "How has research on radiodermatitis evolved over time, what are the main areas of study, influential authors and publication trends in this field?" To answer this question, the general objective was to map and analyze the evolution of research on radiodermatitis over time, identifying the main areas of study, influential authors and publication trends in this field. Its specific objectives were to identify the core of journals most devoted to the subject in the light of Bradford's Law; to verify the existence of an elite group regarding scientific production on radiodermatitis and to analyze the frequency distribution of keywords in scientific articles.

The study aims to provide a comprehensive and up-to-date overview of scientific knowledge related to radiodermatitis, highlighting the most significant developments, expanding areas of research and the main contributors in the field (Machado et. al., 2023).

Bibliometrics is guided by three classic laws: the one proposed by Lotka (1926), which allows the productivity of scientists to be measured; Bradford's law (1934), which allows the dispersion of scientific knowledge to be verified; and Zipf's law (1949), which presents the distribution and frequency model of words in texts (Araújo, 2006). Bibliometric studies thus give researchers access to metrics in certain areas of knowledge (Sangalli, A.; Kauchakje, S, 2020).

METHOD

This is a bibliometric, descriptive and exploratory study with a quantitative approach. Bibliometrics was limited to the Scopus database, as it is a scientific database that covers different areas of knowledge, especially health. It is also an open access source and widely accepted in the

academic community. The database was accessed through the Journal Portal of the Coordination for the Improvement of Higher Education Personnel (CAPES), via the CAFe network.

The term used for the search was identified and validated on the Descriptors in Health Sciences (DeCS)/Medical Subject Headings (MeSH) homepage, and the use of "Radiodermatis" was defined. No time frame was set, so all papers deposited in the database up to March 2023 were included for analysis.

As for preparing the environment for data analysis, the "R" software (version 4.0.3 - Windows 32/64 bits) was first downloaded and installed. Then RStudio® (version 1.3.1093 - Windows). After installing the software, they were started and to access the web interface, proposed in R language to support bibliometric and scientometric analysis, the following commands were typed into the RStudio® software console: library (bibliometrix), and then (biblioshiny), so that the Biblioshiny web interface was launched. Once started, Biblioshiny was used via the browser set as default. The data file saved in *.CSV was retrieved and loaded so that the data could be analyzed.

The data was analyzed and interpreted according to the theories that underpin bibliometric analysis studies (Araújo, 2006). In this review, the journals were subjected to Bradford's Law in order to identify the most devoted journals on the subject of radiodermatitis. The value of the Bradford multiplier (mB) was then calculated. To do this, the number of journals in one area was divided by the number in the previous area. The average Bradford multiplier (XmB) and the absolute (n) and relative (%) frequencies of the quantitative variables were also calculated.

RESULTS

A search of the Scopus database identified 1188 authors who produced 388 documents, indexed in 259 different journals, published between 1918 and 2023, with an annual growth rate of 0.66% and an average productivity of 0.027 articles. As for the prevalence of publications per year, the largest share was published in 2022 (n=22; 5.67%), followed by 2021 (n=20; 5.15%) and 2020 (n=15; 3.86%).

As for the average number of citations per year, 2018 was the most prevalent, with 3.2 citations, followed by 2017, with 2.2, and 2014, with 1.6 citations. Table 1 shows other data characterizing the productions analyzed in this bibliometric.

Table 1 - Main information on the data acquired from the Scopus database. Santa Maria/RS, Brazil, 2023 (N=388)

Description		Results
Key information about the data	Average citation per document	5.369
	References (n)	4.444
Document content	Keywords Plus (ID)	1655
	Author's keywords (DE)	374
Authors (n)	Authors	1188
	Authors in a single document	95
	Single-authored documents	110
Author collaboration (n)	Co-authors per Document	3.46
	International co-authorship %	4,1
Types of documents (n)	Artigos Originais	334
	Brief Research, Letters, Book Chapters, Conferences, Errata, Editorials and Notes	35
	Reviews	17
	Non-specific type of document	02

Source: Research data. Santa Maria, RS, 2023.

As can be seen above, there was a predominance of Plus Keywords (ID) (n=655), single-authored documents (n=110) and original articles (n=334).

Table 2 shows the data relating to the area of knowledge, language and country of origin of the publications.

Table 2 - Characteristics of documents retrieved from the Scopus database using the term "radiodermatis". Santa Maria/RS, Brazil, 2023 (N=388)

Document characteristics	Frequency	
	n	%
Area of knowledge		
Medicine	344	89
Biochemistry, Genetics and Molecular Biology and Nursing	44	11
Language of publications		
English	216	57
French	71	18
Spanish	25	7
German	20	5
Indefinite	19	5

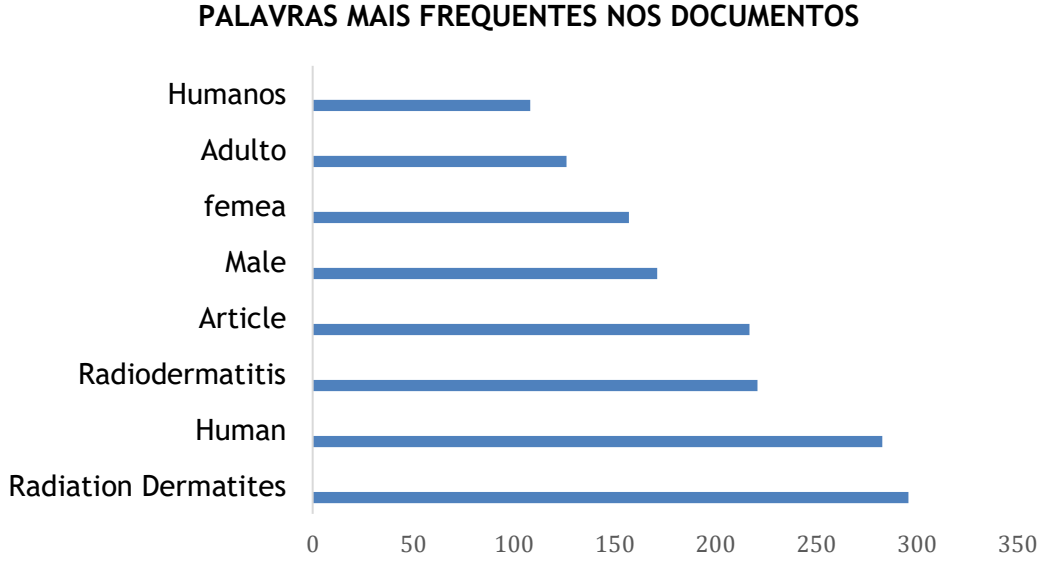
Italian	16	4
Portuguese	9	1
Other languages	12	3
Country of origin of publications		
Unknown country	134	35
United States	52	13
France	30	8
Brazil	28	7
Japan	20	6
Spain	17	4
Germany	16	4
Italy	16	4
Others	75	19

Source: research data. Santa Maria, RS, 2023.

Medicine was the sub-area that produced the most (n=344; 89%). Documents produced in the English language predominated (n=216; 56%), with the United States of America accounting for the largest share of the productions (n=52; 13%).

The most frequent words used in the documents were radiation dermatitis (n=296), followed by human (n=283) and radiodermatitis (n=221) (Figure 1).

Figure 1 - Most frequent words in the documents retrieved from the Scopus database. Santa Maria, RS, Brazil, 2023



Source: research data. Santa Maria, RS, 2023.

As for the authors who published the most documents, Lagrot F., responsible for 11 (0.9%), and Dufourmentel C., with 6 (0.5%) documents, stood out, accounting for 1.43% of publications. As for the other authors, 5 published 4 documents each, i.e. 20 documents (1.26%), 17 published 3 (4.29%), 80 published 2 articles each, accounting for 14% of the publications and 1081 authors published 1 document, i.e. 91% of the publications.

As for the application of Bradford's Law, three zones were identified belonging to the journals that published on "radiodermatitis".

Thus, 36 journals and 130 documents (33.5%) are in Zone 1; 95 journals and 128 documents (33%) are in Zone 2; and 128 journals and 130 documents (33.5%) are in Zone 3 (Table 3). The Bradford Multiplier (mB) for this data is 2.64 compared to Zone 3, which has an mB of 1.34. The difference between Zones 2 and 3 is 1.3.

Table 3 - Bradford's Classic Table of journals that published on the subject of radiodermatitis, indexed in Scopus, from 1918 to 2023.

Journal	number of articles	accumulated Σ	Zone
Bulletin De La Société Française De Dermatologie Et De Syphiligraphie	8	8	Zone 1
Annales De Dermatologie Et De Venereologie	7	15	Zone 1
Actas Dermo-Sifiliograficas	6	21	Zone 1
Archives of Dermatology	6	27	Zone 1
Archives of Dermatology and Syphilology	6	33	Zone 1
British Journal of Dermatology	6	39	Zone 1
Cancer	6	45	Zone 1
Skin Research	5	50	Zone 1
Annales de Chirurgie Plastique	4	54	Zone 1
Journal of the American Medical Association	4	58	Zone 1
Revista Da Escola de Enfermagem	4	62	Zone 1
Supportive Care in Cancer	4	66	Zone 1
The Lancet	4	70	Zone 1
American Journal of Clinical Oncology: Cancer Clinical Trials	3	73	Zone 1
Dermatologica	3	76	Zone 1
El Día MéDico	3	79	Zone 1
European Journal of Oncology Nursing	3	82	Zone 1
H+G Zeitschrift Fur Hautkrankheiten	3	85	Zone 1
Jama: the Journal of the American Medical Association	3	88	Zone 1
Journal of the European Academy Of Dermatology And Venereology	3	91	Zone 1

Journal of Wound Care	3	94	Zone 1
La Presse MãDicale	3	97	Zone 1
Lyon Chirurgical	3	100	Zone 1
Nederlands Tijdschrift Voor Geneeskunde	3	103	Zone 1
Nishinihon Journal of Dermatology	3	106	Zone 1
Radiation Research	3	109	Zone 1
The Journal of Dermatologic Surgery and Oncology	3	112	Zone 1
A. M. A. Archives of Dermatology and Syphilology	2	114	Zone 1
Actas Dermo-SifiliogrãFicas	2	116	Zone 1
Annales de Chirurgie	2	118	Zone 1
Annals Of Plastic Surgery	2	120	Zone 1
Archives Belges de Dermatologie et de Syphiligraphie	2	122	Zone 1
Archives des Maladies Professionnelles et de Medecine du Travail	2	124	Zone 1
British Journal of Plastic Surgery	2	126	Zone 1
Bulletin de la Societe Francaise de Dermatologie et Syphiligraphie	2	128	Zone 1
Cancers	2	130	Zone 1

Source: research data. Santa Maria, RS, 2023.

As can be seen above, the following journals stand out: Bulletin de La Société Française de Dermatologie et de Syphiligraphie, responsible for 8 (2.1%) publications, followed by Annales de Dermatologie et de Venereologie, with 7 (1.8%) publications. The journals Actas Dermo-Sifiliograficas, Archives of Dermatology, Archives of Dermatology and Syphilology, British Journal of Dermatology and Cancer published 6 (1.8%) articles each.

DISCUSSION

Based on the data mined, it is possible to verify that this bibliometric review presents a robust corpus on the subject under investigation, particularly as it identifies production on the subject that has been going on since 1918. It should be noted that the x-ray was discovered in 1895, but it was only in 1898 that the French couple "Curie" discovered the radioactive compound polonium and, later, another element with greater radioactive potential, which is radium. In addition, in the USA, the first patient to be treated was in 1905. After that, in 1920, researchers at the University of Paris studied the effects of radiation on various tissues (Salvajoli; Souhami; Faria, 2023).

It was observed that studies published in the years 2022, 2021 and 2020 prevailed, sequentially. It is inferred that this panorama may be related to the period in which the world

population faced the Covid-19 pandemic, a situation that required social isolation of people around the world. As a result, several researchers have used this context to revisit and qualify their research and, as a result, dedicate themselves to scientific publications of their investigations.

From the point of view of bibliometrics, the observation that studies on radiodermatitis prevailed in the years 2022, 2021 and 2020, sequentially, suggests that research on this topic is growing.

Bradford's law states that knowledge is distributed unevenly in a scientific field. According to this law, the majority of publications on a given subject are produced by a small number of institutions.

In the case of radiodermatitis, the fact that studies have prevailed in recent years suggests that a small number of institutions are leading research on this topic. These institutions may be investing more resources in radiodermatitis research, which may be leading to an increase in the number of publications.

In addition, the fact that the number of publications on radiodermatitis has increased in recent years may be due to a number of factors, such as: researchers' awareness of the negative impacts that this adverse event can have on the therapeutic success of the treatment, such as the need to temporarily suspend treatment, or due to the patient abandoning treatment in view of the severity of the symptoms (Bontempo et al., 2021; Martelletti et. al, 2022). In addition, with the development of new treatment and care technologies, it has become necessary to develop research into the prevention or reduction of adverse events, such as radiodermatitis.

It should be noted that the urgent need to produce knowledge has contributed to a debate on research ethics and open science. In addition, the significant increase in publications has revealed critical points that need to be discussed, such as flaws in integrity and questionable practices that have repercussions on sharing unreliable data (Penido et al., 2022).

Consequently, there was a predominance of single-authored documents and original articles. It is inferred that the predominance of single-authored articles may be related to essential ethical issues in research, as the author is responsible for the entire scientific journey, from the preparation of the research project to the dissemination of the results; this may or may not include the participation of several authors.

From the point of view of bibliometrics, the predominance of single-authored documents and original articles can be explained by a number of factors, such as the structure of scientific research, which is generally carried out by individuals or small groups of researchers (Bar-Ilan & Peritz, 2005). It is also due to publication criteria, as many journals require articles to be original and not have been published before (Cobo, López-Herrera, Herrera-Viedma, 2010). Also, due to the difficulties of collaboration, since research collaboration can be difficult, as it requires a high level of coordination and communication (Leydesdorff, 2007).

In addition, the editorial team of journals adopts as good practice the suggestion of including in the authorship of scientific articles authors who played a prominent role in the construction of the article, even including them based on their involvement in the construction of the article. This avoids possible biases due to non-compliance with ethical standards and possible conflicts of interest (Ventura, Oliveira, 2022).

With regard to the prevalence of original articles, there was also an interest in research related to the theme of "radiodermatitis", which is an expected adverse event resulting from radiotherapy treatment. This treatment is aimed at combating cancer, a disease that has been showing significant numbers among the world's population; in 2018 it was responsible for around 9.6 million deaths (PAHO, 2023).

Medicine was found to be the most productive sub-area. This panorama may be related to the prevalence of cancer and technological advances in this area with the inclusion of new care and treatment protocols. However, it exposes a gap for the inclusion of other areas of knowledge, such as nursing, since it is an integral part of the multi-professional team that cares for individuals undergoing radiotherapy treatment, and thus needs to develop research that addresses this issue in order to support and qualify its clinical practice based on data produced specifically by it and not from the adaptation of other areas such as medicine.

A study pointed out that clinical trials carried out by nurses in Brazil contribute to highlighting advances and gaps in the approaches taken by these professionals. It also found that this type of study has grown over time, but the use of this data is still a challenge in nursing (Silva et al, 2023).

Productions in English and from the USA also stood out. This predominance reflects a requirement from the journals. In addition, the research will be disseminated and because this is

a universal language for the scientific field worldwide, as a rule, it is always required (Silva et al., 2019).

The words most used in the documents investigated were radiation dermatitis, human and radiodermatitis. These terms demonstrate the authors' concern for the consumers of their data, since they are directly linked to the topic in question. According to the authors (Lage, Almeida and Lunardelli, 2021), keywords should be chosen that are understandable and connected to the topic being presented. Also, to make it easier to locate texts (Lage, Almeida, Lunardelli, 2021).

The most frequent word is "radiodermatitis", followed by "treatment" and "patient". This suggests that these are the most important concepts in radiodermatitis research. The least frequent words are technical or specialized terms that are used by a small number of authors.

The frequency distribution of the words is similar to the distribution in other scientific fields. This suggests that Zipf's law is a general phenomenon that applies to a wide range of data. However, it is important to note that this law is an approximation. The frequency distribution of words can be affected by a number of factors, such as the size of the data corpus, the field of knowledge and the language.

The authors Lagrot F. and Dufourmentel C. are the main authors of publications on the subject. These authors have an H-index of zero (via Web of Science). In this sense, a researcher's H-index is measured by the result between the number of articles published and the number of citations of that author's publications. In other words, the more articles cited, the higher the H-index. However, there is a disparity, because although the above authors are the most productive on the subject in question, they do not have a significant index.

It is worth discussing productivity (Lotka's Law) by authorship, as 1081 (91%) authors published just one document each, another 80 (7%), two documents; 17 (1%), three productions; 5 (0.4%), four documents; three (0.2%), published 5; and, a single author (0.1%) was responsible for six publications.

The results presented on author productivity, based on Lotka's Law, reveal a distribution pattern that is consistent with the law. This is a bibliometric law that applies to author productivity and generally shows a significant concentration of authors who publish only one or a few documents, while a much smaller number of authors are responsible for a large number of publications (Lotka, 1926; Price, 1963). It is important to recognize that the concentration of

production in a small number of authors can be influenced by various factors, such as expertise in the field, research opportunities and academic collaborations.

This distribution of productivity has significant implications for research evaluation and academic collaboration, since highly productive authors can play a crucial role in the dissemination of knowledge and leadership in their research areas. Therefore, understanding the productivity of authors is fundamental for bibliometric analysis and understanding the dynamics of research in a specific field.

Therefore, this panorama is in line with Lotka's law, which states that many publish little and few publish a lot (ARAÚJO, 2006). It is also worth reflecting on two aspects: on the one hand, it is clear that there is a diversity of authors studying the subject; on the other, it is important that scholars in the field maintain coherence in their research and follow a line of research in order to strengthen themselves as researchers.

As for the impact factor of the journals in which the documents were published, the journal with the most published documents was the Bulletin De La Société Française De Dermatologie Et De Syphiligraphie, which has no Qualis stratum or impact factor; it is a book that brings together publications in the dermatological field and whose first volume was released in 1939, with its latest volume (7th) being released in 2019. The journal Annales De Dermatologie Et De Venereologie, published by Elsevir, has been online since 1977, covers the field of medicine and dermatology, has an ISSN: 0151-9638, an impact factor of 0.934, CiteScore 2021 = 0.9, SJR 2021 = 0.191 and SNIP 2021 = 0.251 (a source that measures the actual citations received in relation to the expected citations for the thematic area to which the journal refers).

In this context, it is important to note that several of the journals chosen for publication on the subject of radiodermatitis are not yet classified in Qualis CAPES, but they do have an impact factor. This is due, among other things, to the fact that Brazilian postgraduate programs have not published articles in these journals.

As this bibliometric research aims to contribute to science in the field of nursing, it is pertinent to point out that among the journals chosen for publication on the subject, there is the Revista da Escola de Enfermagem da Universidade de São Paulo (USP). This journal's areas of interest are nursing and health. It is free and open access and has been published since 1967. It is currently published in continuous flow, in print (ISSN: 0080-6234) and online (ISSN: 1980-220X), in English, Spanish and Portuguese. It is indexed in the following databases and portals: Web of

Science, MEDLINE, CINAHAL, SCOPUS, LILACS, LATINDEX, CUIDEN-PLUS, PERIÓDICA, BDENF, DOAJ and ULRICH`S.

The Qualis/CAPES classification (2017-2020) is: A2, Journal Citation Reports (JCR): 1.3 and Scientific Journal ranking (SJR): 0.247 (Available at: https://www.scielo.br/journal/reeusp/about/#editors, accessed on 19/10/23). Thus, it can be said that this journal is a reference in terms of theoretical and scientific basis for nursing, both nationally and internationally.

The mB of this bibliometry was high, indicating that the articles are distributed in a large number of zones, also suggesting that the data set is diverse and covers a wide range of topics. In this case, Zone 2 has a mB of 2.64 compared to Zone 3, which in turn has a Multiplier of 1.34. This means that, on average, a source from Zone 2 is cited 2.64 times more than one from Zone 3. A difference of 1.3 between the two mB values indicates that Zone 2 is significantly more productive and cited than the others. In other words, it is assumed that Zone 2 sources are more relevant and/or influential in the field of radiodermatitis research, when compared to the others (Brookes, B. C.,1968; Glänzel, W., & Schoepflin, U. 1995).

In practical terms, this indicates that research, studies or journals belonging to Zone 2 have a greater scientific impact. It is therefore suggested that when conducting new research on radiodermatitis, priority should be given to Zone 2 sources, since they are cited more frequently and can provide more comprehensive or current information on the subject in question.

CONCLUSION

Using the data mined in this bibliometric review, it was possible to verify a robust corpus on radiodermatitis. There was a predominance of publications between 2020 and 2022, the use of Plus Keywords (ID), single-authored documents and original articles. It was also found that Medicine was the most productive sub-area. Productions in English and from the USA also stood out. The most used words in the documents were radiation dermatitis, human and radiodermatitis. According to the Bradford Multiplier, the studies belonging to Zone 2 represent the most influential and prominent on the subject of radiodermatitis, which suggests that it deserves a closer look, since gaps on the subject emerge from it. Journals linked to dermatology are among the main ones chosen to publish material on the subject under investigation.

It is believed that the data mined, as well as the metrics presented, will serve as a guide for proposing new studies related to the topic of radiodermatitis in the area of nursing knowledge. It is worth mentioning that one of the limitations to the construction of this review was the predominance of authors with publications over 50 years old, thus making it difficult to access the metrics of these articles.

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