ORİJİNAL ARAŞTIRMA ORIGINAL RESEARCH

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Characteristics and Citation Analysis of Case Reports Published inTurkish National Otorhinolaryngology Journals

Türk Ulusal Kulak Burun Boğaz Dergilerinde Yayımlanmış Olgu Sunumlarının Özellikleri ve Atıf Analizi

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ABSTRACT Objective: To search the case reports published in national otorhinolaryngology (ORL) journals in terms of fields of ORL and subject categories with citation analysis. Material and Methods: A total of six national otorhinolaryngology journals were included in the study. The case reports in the 2013, 2014, 2015, 2016 and 2017 issues of these journals were searched. The number of case reports and their ratio in the total number of articles, ORL fields that they belong to, and the subject types were investigated. In the last phase of the study, citations to the case reports were determined in the Google Scholar, PubMed and Web of Science databases. Results: It was seen that there was a total of 978 publications in the six national ORL journals in the five-year period, and 342 (34.9%) of them were case reports. While the highest number of case reports was in the field of head and neck surgery, most of the articles in terms of subject content were in the category of rare diseases and unexpected conditions. There were significant differences between the journals in terms of receiving citations to their published case reports. Conclusion: This study, points out to tendencies of national ORL journals on publishing case reports and seeing their contents can be beneficial for academicians who are interested in writing these kinds of articles. On the other hand, the results of the present study will also have a benefit on part of the editorial boards of such journals in terms of reviewing their editorial policies.

Keywords:Case report; bibliometrics; citation analysis; ; otorhinolaryngology; Turkey

ÖZET Amaç: Ulusal kulak burun boğaz (KBB) dergilerimizdeki olgu sunumu türündeki yazıların, KBB'nin alanları ile konu kategorileri ve atıf analizi açısından araştırılması amaçlandı. Gerec ve Yöntemler: Toplam 6 ulusal KBB dergisi çalışmaya alındı. Bu dergilerin 2013, 2014, 2015, 2016 ve 2017 yıllarına ait sayılarındaki olgu sunumları tarandı. Olgu sunumlarının sayıları ve toplam yazı sayılarına oranları, ait oldukları KBB ilgi alanları, sonrasında da her bir olgu sunumunun ait olduğu konu türü araştırıldı. Çalışmanın son aşamasında olgu sunumlarının aldıkları atıflar Google Scholar, PubMed ve Web of Science veri tabanlarında araştırıldı. Bulgular: Calısmaya alınan 6 ulusal KBB dergisinde 5 yıllık süreçte toplam 978 yayın olduğu ve bunların 342 (%34,9)'sinin olgu sunumu olduğu görüldü. En fazla olgu sunumu baş-boyun cerrahisi ilgi alanında yer alırken, konu içeriği açısından yazıların büyük kısmı nadir hastalık ve beklenmeyen durum kategorisinde idi. Olgu sunumlarının aldıkları atıflar açısından dergiler arasında önemli farklılıklar olduğu görüldü. Sonuç: Bu çalışma ile olgu sunumları konusunda ulusal dergilerimizin sergiledikleri eğilimleri ve ilgi çeken olgu sunum içeriklerini görmek, bu türde yazı yazmayı düşünen akademisyenlerimize yarar sağlayabilir. Öte yandan elde edilen bulgular, dergi yayın kurullarının yayın politikalarını gözden geçirmeleri açısından da fayda sağlayacaktır.

Anahtar Kelimeler: Olgu sunumu; bibliyometri; atıf analizi; kulak burun boğaz; Türkiye

The case report is a type of scientific writing that is very common in medicine and dates back to ancient Egypt. In this type of writing, detailed information is given about the complaints of one or more patients at admission, their diagnostic features, disease processes, and treatments.^{1,2} It is very important

that an invention, the difficulty or success achieved, i.e. a new experience, be shared with other physicians. The great physician Sir William Osler has always noted the contribution of case reports to development, saying "Always take notes and record... Publish... Such communications are valu-

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able".³ Case reports presenting new diseases, new treatment modalities or unknown side effects or complications of treatments have always contributed to the development of medicine.¹⁻⁴

Until a few decades ago, case reports, which were important types of scientific articles in the field of medicine, were published less frequently, especially after the 1990s, while their publication in some journals with high impact factors was completely discontinued. One of the primary reasons for this is the emergence of the concept of evidence-based medicine built on large series of cases. The metaanalysis and prospective randomized controlled studies came to the fore with the concept, while case reports that were at the bottom of the hierarchy of evidence lost their importance to a great extent. 1,4,5 The second reason is that case reports were not cited as much as clinical research articles or reviews. Since the impact factors of scientific journals are determined by the number of citations they receive to the articles they publish, editors try to publish as few case reports as possible in their journals.⁴⁻⁷ Although there are studies investigating the importance of scientific writings in various aspects, there is a very limited number of studies on case reports in the literature.8-12

In this study, to our knowledge which is the first for otorhinolaryngology (ORL) in Turkey, it is aimed to search the case reports published in the national ORL journals in terms of fields of ORL and subject categories with citation analysis.

MATERIAL AND METHODS

No ethics committee approval was obtained for the study as the study was a bibliometric one and there were no human elements in it. A total of six national ORL journals were included in the study: ear nose throat (ENT) Updates, KBB-Forum Electronic Journal of Otorhinolaryngology and Head and Neck Surgery (KBB-Forum), Journal of Kulak Burun Boğaz İhtisas (KBB İhtisas), Journal of Kulak Burun Boğaz ve Baş Boyun Cerrahisi (KBB-BBC), Kulak Burun Boğaz Uygulamaları (KBB Uygulama) and Turkish Archives of Otorhinolaryngology (TAO). The case reports in the 2013, 2014, 2015, 2016 and 2017 issues of these journals were searched manu-

ally. The articles published in 2018 and 2019 were not searched considering that they could not receive enough citations until the date of searching databases. For this purpose, the contents of the issues of the journals in the mentioned years were accessed online on the websites of the journals. In addition to the total number of articles (excluding editorials) in each journal, the number of case reports was determined. The relevant ORL field of the case reports (otology, rhinology, head and neck surgery, pediatric ORL and facial plastic surgery) were identified. Then the subject type of each case report was noted, and the case reports were divided into four major categories according to their content.

In the last phase of the study, the citations received by the journals were investigated on the Google Scholar, PubMed and Web of Science databases. At this phase, the search was made between August 19-25, 2019 using the Turkish and English titles of the articles. The most cited case reports in PubMed and Web of Science databases were searched and the first five were presented.

RESULTS

A total of 978 publications were identified after excluding the editorials in 2013, 2014, 2015, 2016 and 2017 issues of the ENT Updates, KBB-Forum, KBB İhtisas, KBB-BBC, KBB Uygulama and TAO journals included in the study. Of these, 342 (34.9%) were case reports. The number of issues of journals published in five years, the number of publications in these journals, number of case reports, and the ratio of case reports to all publications are shown in Table 1. Number of case reports and their ORL fields are shown in Table 2.

The case reports were divided into four main categories as rare diseases and conditions, problems in diagnosis/differential diagnosis or new methods, new medical or surgical treatment methods, and finally treatment complications or unexpected conditions. The distribution of case reports in each journal by these categories are given in Table 3.

Since they encompass the broadest scope, the number of citations to the case reports published in six national ORL journals determined by the Google

TABLE 1: The number of publications and case reports in six national otorhinolaryngology journals between 2013 and 2017.

Name of the journal		The number of case reports
(number of issues published in five years)	Total number of publications	(ratio to number of total publications)
ENT Updates (15)	139	16 (11.5%)
KBB Forum (20)	91	17 (18.6%)
KBB İhtisas (30)	322	117 (36.3%)
KBB-BBC (15)	99	62 (62.6%)
KBB Uygulama (15)	144	67 (46.5%)
TAO (20)	183	63 (34.4%)

ENT: Ear nose throat; KBB-Forum: KBB-Forum Electronic Journal of Otolaryngology-Head and Neck Surgery; KBB İhtisas: Journal of Kulak Burun Boğaz İhtisas; KBB-BBC: Journal of Kulak Burun Boğaz ve Baş Boyun Cerrahisi; KBB Uygulama: Kulak Burun Boğaz Uygulamaları; TAO: Turkish Archives of Otorhinolaryngology.

		TABLE	2: ORL fields of the case r	eports.		
Name of journal	Otology	Rhinology	Head and Neck Surgery	Pediatric ORL	Facial Plastic Surgery	Total
ENT Updates	1	5	10	0	0	16
KBB Forum	2	4	9	2	0	17
KBB İhtisas	14	27	59	7	10	117
KBB-BBC	8	9	35	6	4	62
KBB Uygulama	11	19	31	6	0	67
TAO	10	8	31	12	2	63

ORL: Otorhinolaryngology; ENT: Ear nose throat; KBB-Forum: KBB-Forum Electronic Journal of Otolaryngology-Head and Neck Surgery; KBB İhtisas: Journal of Kulak Burun Boğaz İhtisas; KBB-BBC: Journal of Kulak Burun Boğaz ve Baş Boyun Cerrahisi; KBB Uygulama: Kulak Burun Boğaz Uygulamaları; TAO: Turkish Archives of Otorhinolaryngology.

	TABLE 3: The distrib	ution of case reports according	g to the subject cate	gories.	
Name of the journal	Rare disease/ condition	Diagnostic problems/ new diagnostic methods	New treatment methods	Treatment complication/ unexpected conditions	Total
ENT Updates	11	2	1	2	16
KBB Forum	11	2	2	2	17
KBB İhtisas	101	5	6	5	117
KBB-BBC	50	1	8	3	62
KBB Uygulama	53	0	9	5	67
TAO	44	7	8	4	63

ENT: Ear nose throat; KBB-Forum: KBB-Forum Electronic Journal of Otolaryngology-Head and Neck Surgery; KBB İhtisas: Journal of Kulak Burun Boğaz İhtisas; KBB-BBC: Journal of Kulak Burun Boğaz ve Baş Boyun Cerrahisi; KBB Uygulama: Kulak Burun Boğaz Uygulamaları; TAO: Turkish Archives of Otorhinolaryngology.

Scholar and then the PubMed and/or Web of Science databases by years are given in Table 4. Considering the PubMed and/or Web of Science databases, the five most cited case reports are listed in Table 5.

DISCUSSION

Publishing is the most important way of spreading research findings in a scientific community. Bibliometrics is the field of science which studies publication patterns either describing their characteristics or analyzing citations to show the influence on subsequent research by others. Besides the quality of

journals, research performance of institutions or countries can be measured with bibliometrical studies. There are also quite many bibliometric studies evaluating the quantity and quality of different types of articles, especially original research and review articles in the literature. 12-16 However, the studies evaluating case reports are quite rare.

In this study, we aimed to provide a snapshot of case reports published in a five-year period in national ORL journals in order to provide information to Turkish ORL community, especially young researchers, editors and publishers.

		TABLE	4: Number of case repor	oer of case reports, cited case reports and number of Google Scholar and PubMed and/or Web of Science.	E 4: Number of case reports, cited case reports and number of citations found in Google Scholar and PubMed and/or Web of Science.	.⊑		
Years	ENT Updates NCR/NCCR/G/P-WOS	KBB-Forum NCR/NCCR/G/P-WOS	KBB İhtisas NCR/NCCR/G/P-WOS	KBB-BBC NCR/NCCR/G/P-WOS	KBB Uygulama NCR/NCCR/G/P-WOS	TAO NCR/NCCR/G/P-WOS	Total NCR/NCCR/G/P-WOS	
2013	4/2/3/2	7/1/1/1	29/21/58/34	20/2/2/-	17/4/5/1	12/1/1/-	72/27/65/37	
2014	5/1/1/-	-/-/-9	29/19/40/24	11/1/1/-	17/3/6/3	12/7/13/9	62/28/55/33	
2015	1/-/-	4/-/-	27/19/46/22	15/1/1/0	11/1/1/-	13/3/6/2	60/23/53/24	
2016	3/-/-	1/-/-	21/12/23/9	11/-/-/-	12/-/-	11/4/7/3	47/16/30/12	
2017	3/1/3/2	-/-/-	11/-/-/-	-/-/-9	10/1/1/-	15/8/9/8	34/9/12/10	
Total	16/3/7/4	17/1/1/1	117/71/167/89	62/4/4/-	67/8/13/4	63/23/36/22	342/110/228/120	

Burun Boğaz Uygulamaları; TAO: Turkish Archives of Otorhinolaryngology; NCR: Number of case reports; NCCR: Number of cited case reports; G: Number of citations found in Google Scholar; P-WOS: Number of citations found in PubMed and/or Web of ENT: Ear nose throat, KBB-Forum: KBB-Forum Electronic Journal of Otolaryngology-Head and Neck Surgery; KBB lihisas: Journal of Kulak Burun Boğaz i hitsas; KBB-BBC: Journal of Kulak Burun Boğaz ve Baş Boyun Cerrahisi; KBB Uygulama: Kulak Science.

In the present study, which aims to evaluate the characteristics and citation analysis of case reports published in national ORL journals in Turkey, it has been observed that there were differences in the indexes where the journals belong to, publication languages, the annual number of issues, and the journal policies regarding publication of case reports. It is known that KBB-BBC, one of the studied journals all of which are currently included in ULAKBIM TR index, has not been included in that index between the relevant dates, and KBB İhtisas, which can be accessed in the PubMed database since 2002 and the current name of which is The Turkish Journal of Ear Nose and Throat, has been removed from this database since 2017. Publications of TAO, the official scientific journal of the Turkish Otorhinolaryngology Head and Neck Surgery Society, can be accessed from the PubMed database since 2015. On the other hand, the journals ENT Updates and TAO can be accessed from the Web of Science database due to the Emerging Sources Citation Index that they are included in. An important change regarding KBB-Forum is the fact that this journal has stopped publishing case reports since its first issue of 2016.

Considering the six national ENT journals studied, it was seen that the ratio of case reports to all publications ranged from 11.5% to 62.6%. However, in 2017, which was the last year included in the study, it was noted that KBB İhtisas and KBB-BBC journals decreased the number of case reports they published. The case report, which is a well-known article type of in medical journals, has made significant contributions to the development of our profession from past to present. Although the interest in this type of writing has decreased in scientific journals due to reasons mentioned above, it cannot be

thought that case reports will disappear completely. Although scientific journals contain fewer and fewer case reports in their contents, and even though those who have a high impact factor close their doors to these types of articles, the emergence of journals publishing only case reports and their increasing numbers are the most important proofs that this type of article writing cannot disappear. ENT Case Journal, which started to be published in 2015 in Turkey in its branch, can be given as an example to this. This is in line with today's scientific journal publishing trends in the field of medicine. 5.6.8

As a result of the grouping of case reports published in studied journals between 2013 and 2017 according to the fields of interest of ORL, it was seen that the articles were concentrated in the field of head and neck surgery, followed by rhinology, and otology with close figures. In the present study, case reports related to laryngology, swallowing disorders, sleep apnea and thyroid surgery were categorized in the head and neck surgery field. So, this may be one of the reasons for the higher number of case reports in this field. As there are no similar studies in the literature, it is not possible to ensure a comparison about the fields of case reports.

A classification made according to the subject contents showed that most of the case reports in all journals were in the category of rare diseases and conditions. Although the situation was not very different in the ENT journals taking part in the important indexes, the lack of similar studies in the related literature prevented clearer interpretations. In addition, it was seen that four of the five most cited articles were in the rare diseases and conditions category.

The evaluation of the case reports in terms of the citations they received showed that the indexes where the journals took part played a very important role in this subject. It was seen that the case reports in KBB İhtisas Journal between 2013 and 2016 reached a satisfactory number of citations, but no single citation for case reports was received in 2017 when the journal was removed from the PubMed database. The inclusion of a journal in important indexes is one of the most important factors that increase the visibility of the articles published in that journal. An easily accessible article would be more likely to be cited. 10,17,18 For this

reason, ORL researchers should support activities in ethical standards that will help move our national journals to more favored indexes.

On the other hand, language of the publications can be another important factor in receiving citations as mentioned in many articles. Writing in English can increase the visibility and accessibility to larger audiences. ^{19,20} In the studied period, while ENT Updates was published in only English, KBB-Forum was published in only Turkish. The other three journals accepted articles both in Turkish and English. But all of them published abstracts both in Turkish and English.

Finally, it can be said that there are not many citations received by the case reports in our national journals. However, this is not very different from the international ORL journals with higher impact factors. ^{10,12}

This is the first bibliometric study on case reports for ORL in Turkey. In addition to manual search of articles and case reports, not using Scopus, which is also an important database other than Google Scholar, PubMed, and Web of Science, is the most important limitation of the present study. The heterogeneity of the journals in terms of language, policy about publishing case reports and indexes which they belong to is another significant coefficient mentioned above. But this heterogeneity is not a problem as the aim of the study is not to compare the journals, but to give all the collected data of all national ORL journals in a certain period of time.

CONCLUSION

With this study, it can be beneficial for the researchers who are interested in writing these types of articles to see the tendencies presented by our national ORL journals. Besides, to have an idea about the trendy fields of ORL and subject categories can provide advantage for writing attractive case reports by young academicians. On the other hand, the results obtained will also benefit the editorial boards of journals to evaluate their publishing policies. In the future, similar studies which can be conducted with international ORL journals can enable comparison of the results obtained from our national journals more accurately.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise,

working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Nihat Susaman, Taner Kemal Erdağ; Design: Nihat Susaman, Taner Kemal Erdağ; Control/Supervision: Taner Kemal Erdağ; Data Collection and/or Processing: Nihat Susaman; Analysis and/or Interpretation: Taner Kemal Erdağ; Literature Review: Nihat Susaman, Taner Kemal Erdağ; Writing the Article: Taner Kemal Erdağ; Critical Review: Taner Kemal Erdağ; References and Fundings: Nihat Susaman, Taner Kemal Erdağ.

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