Original Article

Publication Rates of Oculoplastic Surgery and Orbit Abstracts Presented at Turkish Ophthalmological Association National Congresses: 10-Year Analysis

Yusuf İkbal Erdoğdu, Nilay Yüksel

Ankara Bilkent City Hospital, Clinic of Ophthalmology, Ankara, Türkiye

Abstract

Objectives: This study aimed to examine the publication rates of abstracts related to oculoplastic surgery and orbital diseases presented at the Turkish Ophthalmological Association National Congresses (TOA-NCs) in 2013-2022.

Materials and Methods: The study included abstracts in the field of oculoplastic surgery and orbital diseases accepted for presentation at TOA-NCs between 2013 and 2022. These abstracts were reviewed in terms of presentation type (oral, poster), number of authors, study setting (university, training and research, private, public, or abroad hospital), study type (case, clinical, or basic science), study topic (eyelid, lacrimal system, orbit, or thyroid eye disease), journal publication status, time to publication (months), publishing journal (national, international), and journal impact factor.

Results: A total of 802 presentations (233 [29.1%] oral, 569 [70.9%] poster) were included in the study. Of these, 122 abstracts (15.2%) were published (56 [45.9%] oral, 66 [54.1%] poster presentations). The publication rate for oral presentations was higher than for poster presentations (24.0% vs. 11.6%, $p<0.05$). The median publication time and journal impact factor were 18 months (range, 1-88) and 1.3 (range, 0.1-5.17), respectively. Case abstracts had a publication rate of 6.3%, while clinical studies had a higher rate of 21.8% ($p<0.05$). Publication time was negatively correlated with journal impact factor ($r=-0.211$, $p=0.039$).

Conclusion: The 10-year publication rate (15.2%) of abstracts presented in the field of oculoplastic surgery and orbit at TOA-NCs was found to be lower than that of other international ophthalmology meetings. It is noteworthy that the publication rate of oral abstracts and clinical studies was significantly higher. To enhance the scientific publication potential in Türkiye, which has many active ophthalmologists and ophthalmology clinics, it would be beneficial to identify and address negative factors, support clinicians, and strengthen their connections with the basic medical sciences.

Keywords: Abstract, congress, oculoplastic surgery, publication rate

Cite this article as: Erdoğdu Yİ, Yüksel N. Publication Rates of Oculoplastic Surgery and Orbit Abstracts Presented at Turkish Ophthalmological Association National Congresses: 10-Year Analysis. Turk J Ophthalmol. 2024;54:324-329

Address for Correspondence: Nilay Yüksel, Ankara Bilkent City Hospital, Clinic of Ophthalmology, Ankara, Türkiye
E-mail: ozturk.nilay@gmail.com **ORCID-ID:** orcid.org/0000-0003-4336-7438
Received: 27.06.2024 **Accepted:** 16.11.2024

DOI: 10.4274/tjo.galenos.2024.39586

Introduction

National congresses are important scientific meetings where the latest issues in a field are discussed and new emerging technologies are introduced. They contribute to the academic development and clinical approaches of physicians and educators in scientific and social fields. Abstracts are submitted to present studies at national congresses. The preparation and presentation of abstracts are crucial steps in the life cycle of research projects. Abstracts convey the study's purpose, methods used, results obtained, and their implications. Following the review processes, successful abstracts are accepted for oral or poster presentation in the meetings. These review processes are generally different from peer-reviewed journals. The presented studies can influence physicians' decisions regarding the management of their patients and serve as a guide for planning new research. Therefore, the quality of abstracts presented at national congresses is important.[1,2] Publishing a study in a peer-reviewed journal is one of the highest indicators of the academic value of the study and its implications.[3]

There are an increasing number of studies on the publication rates of abstracts presented at national and international meetings in various fields, including ophthalmology. However, there has not yet been a study that evaluates national congress publication data in the field of ophthalmology in Türkiye. This study aimed to evaluate the general characteristics and publication rates of abstracts presented in the field of oculoplastic surgery and orbital

diseases at the Turkish Ophthalmological Association National Congresses (TOA-NCs) between 2013 and 2022.

Materials and Methods

Ethics committee approval for this retrospective cross-sectional study was obtained from Ankara Bilkent City Hospital Ethics Committee No. 1 (E1/4358/2023, date: 29.11.2023). The study was conducted in accordance with the Declaration of Helsinki. Abstracts were accessed online at (https://www.todnet.org/html/todnet.asp?a=ulusal-kongreler). Papers accepted as oral or poster presentations in the field of oculoplastic surgery and orbital diseases at TOA-NCs between 2013 and 2022 were included in the study. These abstracts were reviewed in terms of presentation type (oral, poster), number of authors, hospital where the study was conducted (university, training and research, private, public, and abroad), type of study (case, clinic, and basic science), topic of study (eyelid, lacrimal system, orbit, and thyroid eye disease), publication status in journals, time until publication of the paper (months), journal in which it was published (national, international), and the impact factor of the journal.

The publication status of each study was evaluated between October 1 and 10, 2024, by two independent observers (Y.İ.E., N.Y.) according to the author names and study topics using Google Scholar, PubMed, and TR Index online databases. When searching for the abstracts in PubMed, (Title)/(Keywords of the abstract) AND (First author name) were used. If no publications were found, the names of the first three authors were searched separately. Studies were considered published if the title, purpose, methods, and author list matched those of the abstract. Journal impact factors for the published studies were obtained from Thomson Reuters Journal Citation Reports 2020. Twelve papers published before the congress date were excluded from the study.

Statistical Analysis

The statistical analysis of the data was performed using SPSS (Statistical Package for Social Sciences) version 26.0. Publication rates and categorical variables are presented as percentages. Statistical significance between variables with non-parametric distribution was assessed using the Mann-Whitney U test. Statistical significance value was accepted as $p<0.05$.

Results

A total of 802 presentations (233 [29.1%] oral, 569 [70.9%] poster) in the field of oculoplastic surgery and orbital diseases were included in the study. Of all abstracts, 44.5% were from university hospitals, 43.5% from training and research hospitals, 7.2% from private hospitals, 4.4% from public hospitals, and 0.4% from abroad. Case reports constituted 41.6%, clinical studies 57.9%, and basic science 0.5% of the studies. Eyelid represented the largest topic (38.1%), followed by the lacrimal system (29.1%), orbit (27.9%), and thyroid eye disease (4.9%). General characteristics and distribution of the abstracts are shown in Table 1.

A total of 122 (15.2%) abstracts were published; 56 (45.9%) of them were oral presentations and 66 (54.1%) were poster presentations. The publication rate for oral presentations was 24.0%, significantly higher than the 11.6% publication rate for poster presentations ($p<0.001$). The median publication time of published abstracts was 18 months (range: 1-88 months). The median impact factor of the journals in which published studies were found was 1.3 (range: 0.1-5.17). Forty-two journals (34.4%) were national, while 80 (65.6%) were international journals. The median number of authors per study was 3 (range: 1-11).

When examined according to the hospital where the study was conducted, publication rates were 15.7% for university hospitals, 16.0% for training and research hospitals, 8.6% for private hospitals, and 14.3% for public hospitals. There was no significant difference based on hospital type ($p>0.05$). None of the abstracts submitted from abroad were published. Case abstracts had a publication rate of 6.3%, while clinical studies had a significantly higher rate of 21.8% ($p<0.001$). The four studies categorized as basic science were not published. Publication rates for studies related to orbit, eyelid, lacrimal system, and thyroid eye diseases were 9.4%, 13.7%, 21.0%, and 25.6%, respectively. The publication rates for lacrimal system and thyroid eye disease studies were significantly higher than for orbit studies ($p<0.001$ and $p<0.01$, respectively). Additionally, the publication rate for lacrimal system studies was significantly higher than for eyelid studies ($p<0.05$). Publication rates and statistical significance within categories are shown in Table 2.

The publication rates of the abstracts varied from year to year, but the difference was statistically insignificant ($p>0.05$). The publication rates and the number of abstracts per year are shown in Figure 1. A negative correlation was found between the publication time of the study and the impact factor of the journal in which it was published ($r=-0.211$, $p=0.039$) (Figure 2). No significant correlation was observed between the number of authors and impact factor, publication time, or publication status (Table 3). It was also observed that clinical studies had a significantly higher rate of oral presentations compared to case presentations (48.3% vs. 2.4%; $p<0.001$). The oral presentation rates of clinical and case abstracts are shown in Table 4.

Discussion

In this study, a 10-year analysis revealed a publication rate of 15.2% for abstracts presented in the field of oculoplastic surgery and orbit at TOA-NC, Türkiye's largest ophthalmology meeting. This rate is comparable to the 13% publication rate of oculoplastic surgery and orbit abstracts presented at the All India Ophthalmic Conference in 2010.[4] However, it is important to note that the latter rate is based on one year's meeting data, unlike this comprehensive 10-year analysis. The publication rate of abstracts presented at Saudi ophthalmology congresses between 2015 and 2018 was reported to be 45.7%. In that study, oculoplastic surgery abstracts ranked third with a publication rate of 50.9%.[5] For American Academy of Ophthalmology (AAO) meetings, which are the most widely attended in the field, the publication rate in 2012 and 2013 was 32.7% (304/929

abstracts).[6] Glaucoma studies had the highest publication rate at 47.1%, followed by retina (32.9%), cornea (32.8%), and cataract studies (25.2%). Oculoplastic surgery abstracts ranked fifth with a rate of 20.8% (5/24).[6] At Canadian Ophthalmological Society (COS) meetings between 2010 and 2015, 42.9% of the 874 abstracts were published.[7] Oculoplastic surgery had one of the lowest publication rates among subspecialties, at 35%. Zloto et al.[8] analyzed publication trends in ophthalmology journals from 2010 to 2019 and reported a significant decrease in articles published in the field of oculoplastic surgery. In a study by von Elm et al.,[9] the most commonly cited reasons for low publication rates were lack of time (31%), low priority (21%), previous rejection (10%), problems with co-authors (9%), expected rejection (8%), and negative study outcomes (3%). While we cannot fully explain the low publication rate in our study, it is plausible that one of the major obstacles to journal publication is the rigorous evaluation process employed by journals. Additionally, studies on oculoplastic and orbital surgery are generally published in more specialized journals, and due to the limited number of such journals, publication rates may be lower.

The aforementioned studies generally discussed annual ophthalmology meetings that encompass all subspecialties. A 10-year review of 2,161 studies presented at the North American Neuro-Ophthalmology Society meetings, which focus only on neuro-ophthalmology, revealed a publication rate of 31.5%.[10] This rate was similar to other ophthalmology and neurology conferences, where approximately two-thirds of the studies remained unpublished. Since there is no scientific meeting specifically dedicated to oculoplastic surgery and the orbit in Türkiye, it is not possible to directly compare our results to those of other studies.

According to a study examining 1,742 abstracts presented at the most widely attended international ophthalmology meetings in 2010, the publication rates at 2 and 5 years after the meetings were 33.3% and 47.2%, respectively.[11] von Elm et al.[9] reported that 27% of 19,123 papers from 234 medical meetings held between 1957 and 1999 were published after 2 years, 41% after 4 years, and 44% after 6 years. It is evident that studies continue to be published as long as 6 years after meetings.

Yu et al.[12] analyzed 685 articles from 58 ophthalmology journals and found that the median time from submission to publication was 161 days (interquartile range: 111-232), with a maximum of 594.5 days. The median publication times for abstracts were reported as 12 months (range: 0-60) for Saudi ophthalmology congresses, 40 months (range: 18-54) for AAO meetings and 16 months (range: 0-78) for COS meetings.[5,6,7] In the current study, the median publication time was 18 months (range: 1-88).

Yuan et al.[10] reported that studies with 3 or more authors, basic science studies, and those with over 100 samples were more likely to be published. Mullen et al.[7] also found a significant

Table 1. General characteristics and distribution of the abstracts

		Published (n=122)	Not published (n=680)	Total (n=802)
Presentation type	Oral	56 (24.0%)	177 (76.0%)	233
	Poster	66 (11.6%)	503 (88.4%)	569
Hospital	University	56 (15.7%)	301 (84.3%)	357
	Training and research	56 (16.0%)	293 (84.0%)	349
	Private	5 (8.6%)	53 (91.4%)	58
	Public	5 (14.3%)	30 (85.7%)	35
	Abroad	-	3 (100%)	3
Study type	Case	21 (6.3%)	313 (93.7%)	334
	Clinical	101 (21.8%)	363 (78.2%)	464
	Basic science	-	4 (100%)	4
Study topic	Eyelid	42 (13.7%)	264 (86.3%)	306
	Lacrimal system	49 (21.0%)	184 (79.0%)	233
	Orbit	21 (9.4%)	203 (90.6%)	224
	Thyroid eye disease	10 (25.6%)	29 (74.4%)	39
		Median (range)		
Number of authors		3 (1-11)		
Publication time (months)		18 (1-88)		
Median impact factor		1.3 (0.1-5.17)		
Journal nationality, n (%) National International		 42 (34.4%) 80 (65.6%)		

Row percentages given; n: Total number of abstracts for each category by column

Figure 1. Abstract numbers and publication rates by year

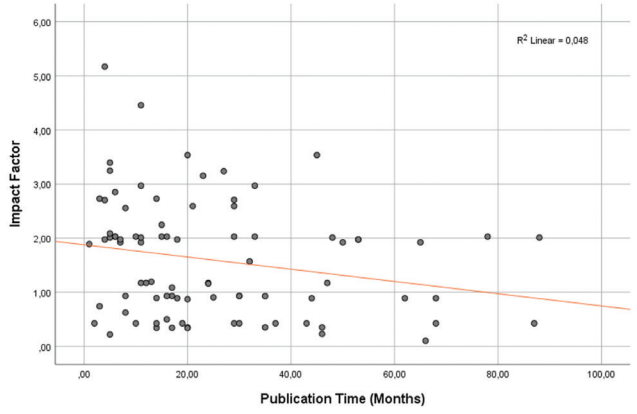

Figure 2. Correlation between impact factor and publication time (r=-0.211, p<0.05)

increase in the publication rate for papers with 5 or more authors. In the current study, the median number of authors was 3 (range: 1-11). However, no significant relationship was found between the number of authors and publication rate, publication time, or impact factor.

In widely attended ophthalmology meetings held at different times, the median impact factors of published abstracts were reported to range between 1.9 and 2.9.[6,13,14] The median impact factor in this study was 1.3 (range: 0.1-5.17), which appears low compared to other studies.

Previous studies have shown that higher journal impact factor was associated with faster acceptance after submission and shorter time from presentation to publication.[12,15] Similarly, the current study also revealed that an increase in the impact factor shortened the publication time (r=-0.211, p<0.05).

A systematic review and meta-analysis of 12,261 abstracts from 11 ophthalmology conferences found that oral presentations and basic science studies had higher publication rates.[16] In a study examining 1,742 abstracts, 44% of studies published at 2 years and 60.5% of studies published at 5 years after presentation were basic science studies.[11] The publication rate of poster presentations was about half that of oral presentations. A study of 8 years of annual congresses of the Royal College of Ophthalmologists between 2005 and 2012 found that randomized controlled trials, basic science studies, and oral presentations were more likely to be published.[15] Similarly, in the current study, oral presentations had a higher publication rate than poster presentations. The high publication rate of oral presentations suggests that higher quality studies are more likely to be accepted as oral presentations at meetings. It was also noteworthy that basic science studies, which other analyses showed are a positive factor for publication, were very underrepresented in this study.

Publication rates may vary depending on subspecialties. Dray et al.[17] reported a significant decline in the publication trend of studies on orbital diseases. They noted that among 465 oculoplastic articles published in general ophthalmology journals, 38.5% focused on the eyelid, 34.4% on the orbit, 19.8% on the lacrimal system, and 7.3% on thyroid eye disease. In the current study, the distribution of abstracts among these topics was 36.1%, 16.7%, 39.8%, and 7.4%, respectively. Studies on the lacrimal system (21.0%) and thyroid eye diseases (25.6%) showed relatively higher publication rates compared to studies on orbital diseases (9.4%). Additionally, the publication rate of lacrimal system studies (21.0%) was higher than that of eyelid studies (13.7%). This might indicate greater expertise and confidence among ophthalmologists in lacrimal system and eyelid diseases compared to the more technically demanding field of orbital diseases. Moreover, the higher prevalence of lacrimal system diseases in society could encourage more research in these areas.

Few studies have evaluated the effect of study setting on publication rates. Alsarhani et al.[5] reported that publication rates were higher for studies conducted in tertiary eye hospitals (54.3%) than general hospitals (32.4%) and in public hospitals (49.2%) than private hospitals (20.8%). In our study, the publication rates of studies from university, training and research, private, and public hospitals did not differ significantly.

In similar studies conducted in medical branches other than ophthalmology in Türkiye, the publication rate generally varied between 8% and 28%, which is lower than that of international counterparts.[18,19,20,21] Considering these similar rates, it can be concluded that the publication success of Turkish physicians is likely affected by common factors such as insufficient scientific value, lack of novelty, and authors' lack of time due to clinical commitments. We believe that providing clinicians with at least half a day of research time per week will increase publication rates.

Study Limitations

Our study has several limitations. Although nearly two years have passed since the last congress evaluated, the wide publication window of 1-88 months suggests that some studies may still be awaiting publication. Since only studies in the field of oculoplastic surgery and orbit were assessed, the findings

Table 2. Publication rates and statistical significance within categories			
	Total number	**Publication rate**	**p***
Presentation type			
Oral vs. poster	233 vs. 569	24.0% vs. 11.6%	**<0.001**
Hospital			
University vs. training and research	357 vs. 349	15.7% vs. 16.0%	0.896
University vs. private	357 vs. 58	15.7% vs. 8.6%	0.159
University vs. public	357 vs. 357	15.7% vs. 14.3%	0.828
University vs. abroad	357 vs. 3	15.7% vs. 0%	0.456
Training and research vs. private	349 vs. 58	16.0% vs. 8.6%	0.143
Training and research vs. public	349 vs. 35	16.0% vs. 14.3%	0.786
Training and research vs. abroad	349 vs. 3	16.0% vs. 0%	0.450
Private vs. public	58 vs. 35	8.6% vs. 14.3%	0.395
Private vs. abroad	58 vs. 3	8.6% vs. 0%	0.599
Public vs. abroad	35 vs. 3	14.3% vs. 0%	0.488
Study type			
Case vs. clinical	334 vs. 464	6.3% vs. 21.8%	**<0.001**
Case vs. basic science	334 vs. 4	6.3% vs. 0%	0.605
Clinical vs. basic science	464 vs. 4	21.8% vs. 0%	0.293
Study topic			
Eyelid vs. lacrimal system	306 vs. 23	13.7% vs. 21.0%	**0.025**
Eyelid vs. orbit	306 vs. 224	13.7% vs. 9.4%	0.127
Eyelid vs. thyroid eye disease	306 vs. 39	13.7% vs. 25.6%	0.051
Lacrimal system vs. orbit	233 vs. 224	21.0% vs. 9.4%	**<0.001**
Lacrimal system vs. thyroid eye disease	233 vs. 39	21.0% vs. 25.6%	0.519
Orbit vs. thyroid eye disease	224 vs. 39	9.4% vs. 25.6%	**0.004**
*Mann-Whitney U test			

Table 3. Correlation values between selected variables		
	r	**p**
Publication time and impact factor	-0.211*	**0.039**
Number of authors and impact factor	0.067*	0.520
Number of authors and publication time	0.061*	0.504
Number of authors and publication status	-0.064**	0.070
*Pearson correlation coefficient, **Spearman's correlation coefficient		

Table 4. Oral and poster presentation rates for study types				
		Study type		
		Case (n=334)	**Clinical (n=464)**	**Basic science (n=4)**
Presentation type	Oral	8 (2.4%)*	224 (48.3%)*	1 (25.0%)
	Poster	326 (97.6%)	240 (51.7%)	3 (75.0%)
Column percentages given, n: Total number of abstracts in each column, *p<0.05, Mann-Whitney U test				

cannot be generalized to all fields of ophthalmology due to potential variations in publication rates among different subspecialties presented at the congress. Furthermore, there is a possibility that some studies might be indexed in databases other than those searched (PubMed, TR Index, and Google Scholar), although it is rare.

Conclusion

The 10-year publication rate (15.2%) of abstracts presented in the field of oculoplastic surgery and orbit at TOA-NCs was found to be lower than that of other international ophthalmology meetings. It is noteworthy that publication rates were significantly higher for oral abstracts and clinical studies. To enhance the scientific publication potential in Türkiye, which hosts many active ophthalmologists and ophthalmology clinics, it would be beneficial to identify and address negative factors, support clinicians and strengthen their connections with basic medical sciences.

Ethics

Ethics Committee Approval: Ethics committee approval for this retrospective cross-sectional study was obtained from Ankara Bilkent City Hospital Ethics Committee No. 1 (E1/4358/2023, date: 29.11.2023).

Informed Consent: Retrospective study.

Declarations

Authorship Contributions

Concept: N.Y., Y.İ.E., Design: N.Y., Y.İ.E., Data Collection or Processing: Y.İ.E., N.Y., Analysis or Interpretation: N.Y., Y.İ.E., Literature Search: Y.İ.E., N.Y., Writing: Y.İ.E., N.Y.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

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