Publication Rates of Presentations at Annual Scientific Meetings of the Turkish Neurosurgical Society

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ABSTRACT

AIM: National and international society meetings are suitable mediums at which diverse research topics from basic, clinical and translational sciences can be presented to an audience of peers. In this study, our purpose was to evaluate publication rates of presentations in the last recent four years’ annual scientific meetings of Turkish Neurosurgical Society (TNS).

MATERIAL and METHODS: Abstracts of both podium and poster presentations were retrieved from the congress booklets of TNS. Study timeline included TNS annual scientific meetings of 2011, 2012, 2013, and 2014. Abstract titles and author names of the abstracts were searched in Pubmed/MEDLINE and Google Scholar databases.

RESULTS: In total, 3105 presentations to an audience took place in the annual scientific meetings of TNS organized between 2011 and 2014. Acceptance rate of these studies by peer-reviewed scientific journals was 326 (10.5%). In sub-analysis, there were 2408 electronic posters (148 accepted, 6.1%), 195 poster presentations with discussion (44 accepted, 22.6%), and 502 podium presentations (134 accepted, 26.7%).

CONCLUSION: Acceptance rate of podium presentations in annual scientific meeting of TNS is at comparable levels with similar organizations on the world. However, the rate is lower for poster presentations.

KEYWORDS: Abstract, Podium presentation, Poster presentation, Publication, Peer-review

INTRODUCTION

National and international society meetings are suitable mediums at which diverse research topics from basic, clinical and translational sciences can be presented to an audience of peers. Presentations are made in oral or poster form according to preliminary selection processes. This provides the opportunity to discuss the study results and revise them before submission to peer-reviewed journals. The Turkish Neurosurgical Society (TNS) is the prominent governing body for neurosurgeons in Turkey (24). Scientific meetings have been held yearly for the past 28 years and are becoming more international every year.

In this study, our purpose was to evaluate publication rates of the presentations in the last four years’ annual scientific meetings of TNS.
included TNS annual scientific meetings of 2011, 2012, 2013, and 2014. Abstract titles and author names of the abstracts were searched in Pubmed/MEDLINE and Google Scholar databases. If search did not give a result for the abstract, it was assumed that the study had not been published in a peer-reviewed journal. Similar abstract titles with similar authors in scientific databases have been accepted as ‘published article’.

■ RESULTS
In 2011, 469 electronic posters were presented and 75 poster presentations with discussion and 113 podium presentations were held during the annual scientific meeting of TNS. Of these presentations, 124 (18.8%) were published in peer-reviewed scientific journals. If we sub-analyze this percentage, we observe that 49 (10.4%) of the electronic posters, 27 (36%) of the poster presentations with discussion, and 48 (42.4%) of podium presentations were published. In the annual meeting organized in 2012, there were 773 presentations in total. Five-hundred-eighty-five of the presentations were electronic posters, 60 were poster presentations with discussion and 128 were podium presentations. Publication percentage of the meeting presentations was 11.8% (91/773). Forty-four (7.5%) of the electronic posters, 11 (18.3%) of the poster presentations with discussion, and 36 (28.1%) of the podium presentations were accepted in peer-reviewed journals. The total number of presentations was 781 in 2013, of which 67 (8.6%) were published. There were 621 electronic posters, 30 poster presentations with discussion, and 130 podium presentations in the meeting. Thirty-four (5.5%) of the electronic posters, 5 (16.6%) of the poster presentations with discussion, and 28 (21.5%) of the podium presentations were accepted as publications. In 2014, there were 894 presentations, of which 733 were electronic posters, 30 were poster presentations with discussion, and 131 were podium presentations. Forty-four (4.9%) of the abstracts were accepted. Acceptance rates were 21 (2.8%), 1 (3.3%), and 22 (16.8%) respectively. In total, 3105 presentations were given to the audience in the annual scientific meetings of TNS organized between 2011 and 2014. Acceptance rate of these studies by peer-reviewed scientific journals was 326 (10.5%). In sub-analysis, there were 2408 electronic posters (148 accepted, 6.1%), 195 poster presentations with discussion (44 accepted, 22.6%), and 502 podium presentations (134 accepted, 26.7%) (Table I).


■ DISCUSSION
Scientific studies start with a question that has emerged after analyzing previous information, which leads to defining a hypothesis, clarifying materials and methods, collecting data, analyzing the data and producing final new information born from the previous one which can be disseminated via publications (19). The scientific meetings are the most available areas at which results can be presented to colleagues before submission to peer-reviewed journals. Besides, new ideas and questions may emerge in the discussions (4,19). Results presented at scientific meetings find ground by being applied to clinical practice (4). Before becoming an oral or a poster presentation in the meeting, a through peer-review process is handled by a scientific board of the congress which is composed of renowned scientists and clinicians of their fields (19).

Publication rates of different subspecialty scientific meetings have been analyzed to clarify the quality of the meetings. Publication rates of 11-78% were mentioned in these studies (1-16,20,22,23,25,26). Specifically, publication rate of presentations of the 1996 Annual Meeting of the American Academy of Orthopaedic Surgeons was 34% (1). Overall rate of publication of the presentations held in NASS (North American Spine Society), SRS (Scoliosis Research Society), and ISSLS (The International Society for the Study of the Lumbar Spine) was 43.5%. Separately the rates were 40%, 47% and 45%, respectively (25). The publications rate was found to be as high as 68% for the presentations at the Society for Gynecologic Investigation in a 9-year period (1990-1999) but it was also mentioned that most of the publications had

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of electronic posters</th>
<th>Number of poster presentations with discussion</th>
<th>Number of poster presentations published (%)</th>
<th>Number of podium presentations</th>
<th>Number of podium presentations published (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>469</td>
<td>10.4</td>
<td>75</td>
<td>36</td>
<td>113</td>
</tr>
<tr>
<td>2012</td>
<td>585</td>
<td>7.5</td>
<td>60</td>
<td>18.3</td>
<td>128</td>
</tr>
<tr>
<td>2013</td>
<td>621</td>
<td>5.5</td>
<td>30</td>
<td>16.6</td>
<td>130</td>
</tr>
<tr>
<td>2014</td>
<td>733</td>
<td>2.8</td>
<td>30</td>
<td>3.3</td>
<td>131</td>
</tr>
<tr>
<td>Total</td>
<td>2408</td>
<td>6.1</td>
<td>195</td>
<td>22.6</td>
<td>502</td>
</tr>
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been published in group 3 journals (7). Publication rates for the presentations at the American Urological Association Annual Meeting were 59% (podium presentations), 55% (poster presentations), 55% (unmoderated poster presentations), and 42% (video presentations). Despite the high publication rates, overall journal impact factors for accepted manuscripts were at a modest level (10). The overall rate for presentations at the 2007 and 2010 Canadian Association of Radiation Oncology Meeting was 51.2% and published about 1.5 years following the presentations (14). Patel et al. (19) analyzed the publication rates of abstracts presented at the American Association of Neurological Surgeons (AANS) and the Congress of Neurological Surgeons (CNS), which are two big neurological societies in the U.S.A. They stated that publication rates were 30.91-33.95% and 29.79-35.40%, respectively. Acceptance rate ranged from 4.9% to 18.8% in our study, being lowest in the last year and highest in 2011. As the peer review and revision process takes time, we expect more studies to be accepted in later years. It was also found that overall time for an abstract to be indexed in Medline/Pubmed is 5 years and 90% of the abstracts presented at a meeting get published within 4 years (4,20-22). So, we compared 2011 TNS annual meeting results with 2003 AANS and CNS annual meeting results (both are starting points for the two studies) to enable a healthier conclusion. Acceptance rates for the abstracts presented on the podium were similar (42.4% in TNS, 42.02% in AANS, and 42.80% in CNS). However, acceptance rate for poster presentations (combination of electronic posters and poster presentations with discussion) in TNS (13.9%) were lower than the acceptance rate of the ones presented in AANS (32.14%) and CNS (28.73%) (19). Acceptance rate for podium presentations of TNS were higher than all kinds of poster presentations, which is due to vigorous election process for podium presentations (p<0.01). Another point is that the vast majority of poster presentations were case series or case reports, which have evidence levels of 4 and 5, respectively. Most scientific journals have recently turned to accepting manuscripts with higher levels of evidence. In an analysis performed by Scherer et al., the most common reasons for non-publication of abstracts were ‘lack of time and resources’ (23). Although, acceptance rates for abstracts with positive results were comparable to abstracts with negative results, there is a preconceived idea in authors’ minds that abstracts with negative results would be rejected by scientific journals (17,18).

The journals that accepted abstracts presented at the 2011-2014 annual scientific meeting of TNS were also analyzed. The three leading journals were Turkish Neurosurgery, Acta Neurochirurgica, and Clinical Neurology and Neurosurgery. Our limitation in this study was that we conducted our study using Pubmed/Medline and Google Scholar databases, so the abstracts that were accepted by scientific journals and not indexed in these 2 big databases may have been missed.
CONCLUSION

The acceptance rate of podium presentations in annual scientific meeting of TNS is at comparable levels with similar organizations in the world. However, the rate is lower for poster presentations. To enhance the acceptance rate of the abstracts, the authors should spare time and resources to their projects and insist on what they have found even if the results are negative.

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