Quality Assessment of Abstracts of the Xth Congress of the Middle East Society for Organ Transplantation: Does It Need Improvement?

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Abstract

Background and Aims: As all submitted abstracts, are not published as full articles in every meeting, therefore a published abstract is often the only source to earn the methodology and results of a study. The current study was designed to evaluate the abstracts quality of Xth congress of the Middle East Society for Organ Transplantation (MESOT) held November 2006.

Methods: Quality assessment checklist, which was developed by Timmer et al, was used to evaluate abstract quality. One hundred and fifteen abstracts of total 449 abstracts were selected by cluster random sampling. From oral and poster presentations we examined study type, study design, country of study, number of authors, organ type and quality score for each study. Evaluation was done by a reviewer.

Results: The human observational study was the most common type of study (72%). 59.1% of all abstracts had been submitted by Iran. The majority of abstracts had 5-10 authors (61%) and the most common transplanted organ was kidney (77%). The mean ± SD of all abstracts was 0.67±0.12 and 89.6% had quality score >0.5. Human observational studies with 0.69±0.11 quality score had highest score. The highest quality was related to object description and design evident had the lowest quality.

Conclusion: Published abstract at Xth MESOT congress had good quality score and design evident of researches must be improved in the future.

Keywords: Quality assessment, Research design, Congresses, Scoring Methods

Introduction

An essential part of scientific communication is presentation of researches at scientific meetings. Article presentation at a meeting is usually base on its abstracts.

Only 50% of the articles will be published as full article (1). Therefore, reading the published abstracts is only way for being informed of studies methodology and results. Abstract provides an good resource for busy clinicians, researchers and authors and it help them to decide whether reading the whole article is relevant to their subject and sometimes clinical decisions are made based on reading the abstract alone (2).

Consequently, in spite of amount limitation, certain information should be included at an abstract in order to provides the reader with essential information and accurately reflects the material in the text (3). According to the crucial role of the abstract, recommendations were made to promote structured

presentation of abstract (4, 5). Furthermore, structure appears to have improved the quality and usefulness of abstract (6-8). Abstracts quality has been evaluated in some studies and some of them have shown that abstracts quality are not good (9-11).

This study was designed to assess the quality of presented abstracts, either oral or poster form, in x[th] congress of the Middle East society for organ transplantation (MESOT).

Material and Methods

The current study was conducted to appraise the abstracts quality of the xth meeting of the MESOT held 26 – 29 November 2006 in Kuwait, in order to identify areas of strength and weakness. Total 449 abstracts was presented at congress and 115 abstracts, oral or poster presentations, were selected for evaluation by cluster random sampling; and lec-

tures and plenary sessions from the analysis were excluded. We traced study type, country of study, number of authors and transplantation type and all abstracts were assessed by a single reviewer. To determine abstract quality, a checklist, in which has been developed by Timmer et al, was used. This checklist is reliable, valid and applicable instrument while most useful in the clinical research setting, but it has limitation in using for basic science (12). This checklist is comprised 19 items. For each item, a maximum of 2 points is awarded (0 if not met, 1 if partially met, 2 if fully met). In addition, maximum 5 points has been considered for study design and study types are divided into five categories, including: human interventional, human observational, basic interventional, basic observational and others. Also, more subdivisions exist for each category. The sum of study score and design are considered as final score. The quality score is calculated by dividing the final

Table 1: Abstract characteristics and quality mean score

	Frequency-n (%)	Mean Score ± SD	*P* Value
Study design			
Human interventional	21 (18.3%)	0.56 ±0.14	
Human observational	83 (72.2%)	0.69 ± 0.11	
Basic interventional	9 (7.8%)	0.67 ± 0.11	0.000
Basic observational	1 (0.9%)	0.71	
Country			
Iran	68 (59.1%)	0.67 ± 0.12	
Kuwait	13 (11.3%)	0.70 ± 0.05	
Turkey	13 (11.3%)	0.64 ± 0.14	
Others	21 (18.3%)	0.65 ± 0.14	0.7
Number of authors			
1-4	34 (29.6%)	0.64 ± 0.16	
5-10	70 (60.9%)	0.68 ± 0.10	
More than 10	11 (9.5%)	0.70 ± 0.05	0.4
Organ transplant type			
Kidney	89 (77.4%)	0.68 ± 0.11	
Liver	13 (11.3%)	0.70 ± 0.09	
Others	13 (11.3%)	0.56 ± 0.18	0.09

SD, Standard Deviation; **n**, number

Table 2: The average Score of common items among all study design (ranged 0 – 2*)

Abstract Quality Assessment Item	Average Score ±SD
Subjects appropriate to the study Question?	1.89±0.37
Question/objective sufficiently described?	1.95±0.22
Do the results support the conclusion?	1.91±0.28
Design evident and appropriate to answer study?	1.58±0.53
Results reported in sufficient detail?	1.77±0.51
Method of subjective selection descried and appropriate?	1.74±0.51
Subject characteristics sufficiently described?	1.88±0.35

*0 if not met, 1 if partially met, 2 if fully met

abstract score to expected final score. Eventually, quality score was ranged from zero to one (i.e. no quality to high quality).

Statistics

Mentioned checklists were filled for every abstract and quality score was shown as values± SD. Because of the data was not normally distributed, which was showed by the Kolmogorov-Smirnov test, non parametric tests were used. Comparisons were carried out using the Mann-Whitney test for two independent samples or the Kruskal-Wallis test for multiple comparisons. *P* value of less than 0.05 was considered statistically significant and SPSS version 15.0 was used for all analyses.

Results

The mean score of all abstracts was 0.67 ± 0.12 with 0.95 CI (0.65-0.69) and 89.6% had quality score >0.5. The most common study design was human observational and the least prevalence was related to basic intervention. Iran had the highest numbers of abstracts (59%). The majority of abstracts had 5-10 authors (61%) and the highest numbers of submitted abstract were about kidney transplantation (77%)

(Table 1). The average score of common items among all studies has shown that the weakest part is appropriate and evident design to answer study and the strongest part is objective description (Table 2).

Discussion

The current study highlighted that the quality of abstract submissions accepted in x[th] MESOT congress was acceptable and quality score in about 90% of them was more than 0.5. The strongest part of abstract was objective of studies but the weakest part was appropriate and evident design. (Table 2)

It can be representation of this fact that although researchers have enough awareness about their objects of studies, but researches are designed no appropriate. For example, many numbers of observational studies had no control for confoundings.

Although, there are not identical criteria for an article selection to be presented at a meeting and some presented articles have no acceptable qualities, it seams that quality score instruments should be used before selection of articles for presentation.

We use Timmer et al checklist for scoring, this questionnaire has limitation in using for basic science and only 10 abstracts in our study were basic, therefore it can not confound our results. Although, structured abstracts have been widely adopted in medical journals but unstructured abstracts were accepted by scientific committee of congress. However, unstructured abstracts were demonstrated to be of lower quality compared with structured abstracts and may account for the differences in quality scores (11). The structured format should be more widely adopted in scientific meetings. This seems to have led to improvement. Structured abstracts for original studies require authors to systematically disclose the objective, basic research design, clinical setting, participants, interventions (if any), main outcome measurements, results, and conclusions (3). The quality could be improved by systematically mentioning the research setting. More informative abstracts of this

kind can assist peer review to find a good article for presentation at the meetings and allow researches to decide whether reading the whole article is applicable to their practices.

The abstract about renal transplantation accounted for 77% of all publications and the most articles originated from Iran (59%), Kuwait (11%) and Turkey (11%), meaning that there was an increasing trend in the number of presentation at MESOT congress in the field of kidney transplantation and limited countries were actually involved in this region meeting.

Conclusion

The need for improvement in abstract quality has been recognized, and scientific committee of congress should considered acceptable and reliable quality criteria for abstract selection as presentation at the meeting. A reliable quality index for the evaluation of scientific meeting abstracts is necessary to promote the quality of meetings. Despite some weaknesses in particular aspects, we conclude that the congress has offered abstracts with acceptable overall quality and adequate methodology.

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