Plenary presentations and public citations from The American Association for Thoracic Surgery

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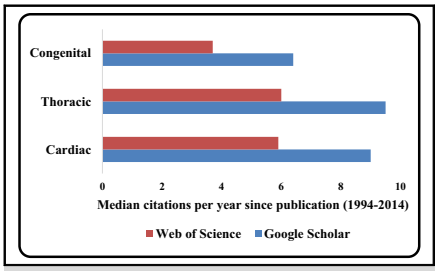
ABSTRACT

Objective: We examined the impact of work presented in the plenary sessions at the meeting of The American Association for Thoracic Surgery (AATS), by determining how frequently the published papers corresponding to the session presentations during the past 20 years, were cited; those that were most cited were identified.

Methods: We reviewed the AATS meeting programs from the 20-year period from 1994 to 2014 and identified the corresponding publications in the *Journal of Thoracic and Cardiovascular Surgery* (*JTCVS*) from all abstracts presented at the plenary sessions. Papers were categorized as cardiac, thoracic, or congenital. References were evaluated for subsequent citation in the Web of Science (WoS), and Google Scholar (GS). We determined both the median number of citations overall, and per year. For comparison, we evaluated numbers of citations in WoS from current *JTCVS* papers in issues containing the 3 most-cited plenary session papers.

Results: Among 195 published plenary papers, the median number of citations in WoS and GS was 49 and 76, respectively. The median total number of citations in WoS was as follows: 51 for cardiac-category papers (n = 105); 61 for thoracic (n = 55), and 41 for congenital (n = 35). These values were higher than the median total number of citations for contemporary nonplenary *JTCVS* papers: cardiac (22, n = 55; $P < .001$); thoracic (31.5, n = 8; $P = .183$); and congenital (15.5, n = 24; $P = .002$) papers published in *JTCVS*. The median number of citations per year since publication for plenary publications was 5.9 (cardiac), 6 (thoracic), and 3.7 (congenital), respectively.

Conclusions: Publications corresponding to the plenary sessions of the AATS are highly cited and include some of the seminal studies in our field in the past 20 years. (J Thorac Cardiovasc Surg 2016;151:30-4)



Median number of citations per year since publication.

Central Message

Publications from the plenary sessions of the AATS meeting are highly cited and include some of the seminal studies in the field of thoracic surgery.

Perspective

The plenary scientific session of the AATS meeting provides a forum for presentation and discussion of the most-significant clinical research in the field of cardiothoracic surgery. Publications corresponding to the presentations are highly cited and include some of the seminal studies in the field in the past 20 years.

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In his opening remarks at the inaugural meeting of The American Association for Thoracic Surgery (AATS), on June 10th, 1918, S.J. Meltzer, the first president, eloquently described to a group of general surgeons the reason for the society's creation: for the advancement of the knowledge of and skill in thoracic surgery.[1] He emphasized the need to "single out" the thoracic cavity, and to focus on pathologies that occur above the diaphragm. Until that time, the chest had garnered little attention from most of the leading surgeons and experimental investigators.

Now, close to a century later, the field of thoracic surgery is robust, thanks to the tireless work of many pioneering surgeons and institutions. The field has branched out into the subspecialties of cardiac, general thoracic, and congenital surgery. Fueled by surgical and technologic advances, research in the field of thoracic surgery has grown exponentially. Each year, from among hundreds of abstracts, the AATS abstract committee selects those they believe to describe the most important and influential clinical research in each subspecialty, to be presented at the plenary scientific session. The aim of this study is to examine the impact of the work selected by the AATS for

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Abbreviations and Acronyms

AATS = The American Association for Thoracic Surgery
GS = Google Scholar
JTCVS = *The Journal of Thoracic and Cardiovascular Surgery*
WoS = Web of Science citation index

this session, by determining how frequently the published papers from the session were cited. We sought to identify and capture the historical significance of the most-cited publications of the past 20 years within the fields of cardiac, general thoracic, and congenital surgery.

METHODS

We reviewed the AATS annual meeting programs from 1994 to 2014, using the AATS Web site to identify presentations from the Monday and Tuesday morning plenary sessions. The corresponding publications in *The Journal of Thoracic and Cardiovascular Surgery* (*JTCVS*) were identified using a PubMed search for a similar title with the same principal investigator, published within 2 years of the presentation. Papers were classified as cardiac, general thoracic, or congenital; the country and institution where the principal investigation took place were noted. Studies that were conducted across institutions were categorized as multi-institutional, and those conducted across institutions in different countries, international.

Our search of the identified papers was conducted in August 2015 using 2 databases; the Web of Science citation index (WoS; formerly ISI Web of Knowledge), and Google Scholar (GS). Web of Science includes data from 23,000 scientific journals from the year 1900 to the present. The WoS Web site is maintained by Thomson Reuters, which assigns a yearly impact factor to scientific journals. Google Scholar covers a wider array of scientific literature, including books and abstracts, and pre-prints and online reports not found in WoS.

For each discipline, the publications were arranged in descending order by number of citations determined by the WoS. A citation density (the number of times a work was cited per year since publication) was calculated for each publication. The median number of citations overall, and per year, was then calculated for each discipline. For comparison, we evaluated citation numbers in WoS from contemporary *JTCVS* papers published in issues containing the 3 most-cited plenary session papers in each subspecialty.

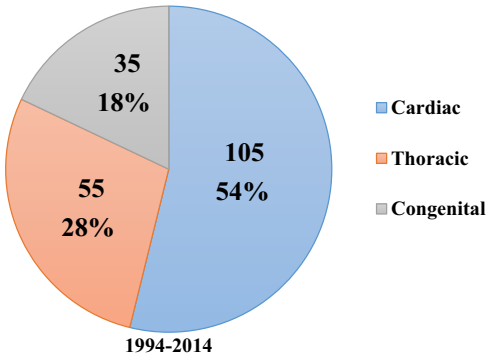

FIGURE 1. Numbers and percentages of AATS plenary papers (1994-2014), by subspecialty.

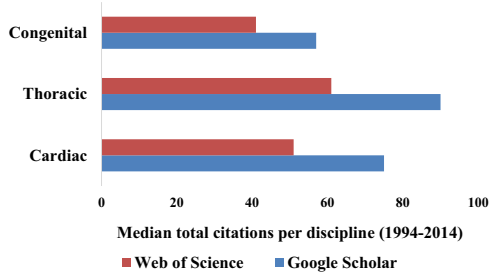

FIGURE 2. Median total citations of AATS plenary papers, per subspecialty.

RESULTS

Total Citations and Citations per Year

In the study period, 220 papers were presented at the Monday and Tuesday plenary sessions. Of these, 195 (89%) were subsequently published in *JTCVS*, including 105 in the cardiac category, 55 in general thoracic, and 35 in congenital. Six were published in other journals (Figure 1). The median number of citations for the 3 disciplines combined was 49 in WoS, and 76 in GS. We divided the papers by subspecialty to determine, for each database, their total number of citations, and number of citations per year, since publication (Figures 2 and 3).

For papers in the cardiac category, the median total number of citations was 51 in WoS, and 75 in GS; the median number of citations per year was 5.9. For the general thoracic category, the median total number of citations was 61 in WoS, and 90 in GS; the median number of citations per year was 6. For the congenital category, the median total number of citations was 41 in WoS, and 57 in GS; the median number of citations per year was 3.7.

For comparison, we evaluated total number of citations in WoS per year, from all of the papers published in *JTCVS* in the same issues as the 3 most-cited papers from each subspecialty: 55 cardiac, 24 congenital, and 8 general thoracic. The median total number of citations from *JTCVS* plenary session papers was significantly higher than the median total number of citations for contemporary nonplenary papers in each category: cardiac (22, n = 55; $P < .001$); thoracic (31.5, n = 8; $P = .183$); and congenital (15.5, n = 24; $P = .002$) (Figure 4).

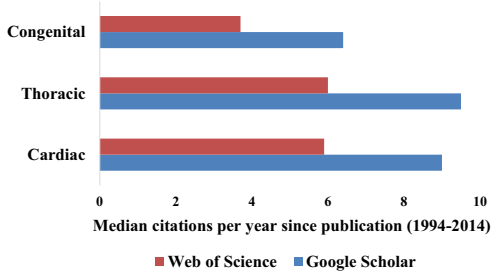

FIGURE 3. Median citations of AATS plenary papers, per year since publication.