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# Publications generated from abstracts presented at the 28<sup>th</sup> Congresso Brasileiro de Patologia and the 28<sup>th</sup> Congreso de la Sociedad Latinoamericana de Patologia, in 2011

*Publicações geradas a partir de resumos apresentados no XXVIII Congresso Brasileiro de Patologia e no XXVIII Congreso de la Sociedad Latinoamericana de Patología, realizados em 2011*

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## ABSTRACT

**Introduction:** The medical congresses are an efficient way, although restricted, to expose the scientific production of a particular specialty. However, the number of complete articles published resulting from papers presented at congresses and published as abstracts is much lower than the number of papers presented during the meetings. **Objective:** Scale the number of complete articles published and indexed in online databases, from 2012 to January 2015, originally presented at the 28<sup>th</sup> Congresso Brasileiro de Patologia (28<sup>th</sup> Brazilian Congress of Pathology) and the 28<sup>th</sup> Congreso de la Sociedad Latinoamericana de Patología (28<sup>th</sup> Latin American Society of Pathology Congress). **Material and method:** In the meetings mentioned 701 papers were presented and their abstracts published in the congresses annals. An observational retrospective study was conducted consulting the following biomedical databases: Scientific Electronic Library Online (SciELO) and US National Library of Medicine on the National Institutes of Health (PubMed), with the help of the Google search engine, based on the article title and the list of authors. **Results:** From 701 studies analyzed, 635 (90.6%) were from Brazilian institutions, 60 (8.6%) from foreign institutions, and six (0.8%) did not identified their home institutions. There were found 63 (8.8%) complete articles published and indexed to consulted databases. International journals were the destination of 38 (60.3%) publications. **Conclusion:** The number of complete articles published in Pathology area arising from the papers presented in the studied meetings in the first three years after the meetings is relatively small. This number is low compared with other international conferences; however, it is higher than some Brazilian medical congresses analyzed in similar studies.

**Key words:** congresses; journal articles; pathology; bibliographic databases; meeting abstracts.

## INTRODUCTION

The diffusion of scientific knowledge produced, besides being an deontological element to the researcher, is essential to validate the new learning; hence, the papers presented in scientific meetings and publication of studies in professional journals are interesting ways to perform this task. However,

the first option is known to be limited, which makes the publication a much more effective method of spreading knowledge for Science<sup>(1)</sup>.

Regarding the disclosure of research, in the recent years, the Brazilian scientific production has increased<sup>(2-4)</sup>, such a thing, although auspicious, cannot hide a the present reality: the invisible scientific production, a term that defines the large

number of unpublished research, a learning that sometimes is creative and of good quality, but remains inaccessible<sup>(1)</sup>.

In an attempt to improve the national scientific production, it is necessary to estimate our hidden science, since we believe that the amount of abandoned researches is large; naturally, it tends to vary accordingly to the different areas of knowledge, and particularities of each one are observed. The medical area with its numerous specialties, is no exception<sup>(2)</sup>.

Within this thought, this study attempted to scale the amount of published articles by searching three important online databases, from titles and authors of papers presented at the 28<sup>th</sup> Congresso Brasileiro de Patologia (28<sup>th</sup> Brazilian Congress of Pathology) and the 28<sup>th</sup> Congreso de la Sociedad Latinoamericana de Patología (28<sup>th</sup> Latin American Society of Pathology Congress), which took place on 11-15 October 2011, in Maceió, state of Alagoas, Brazil; with publications from Brazil, Chile, Argentina, Colombia, Venezuela, Paraguay, Mexico, Ecuador, Spain and the United States of America (USA)<sup>(5,6)</sup>.

## OBJECTIVE

To measure the number of complete articles published and indexed on national and international online databases, from title and authors of papers presented at the 28<sup>th</sup> Congresso Brasileiro de Patologia (28<sup>th</sup> Brazilian Congress of Pathology) and the 28<sup>th</sup> Congreso de la Sociedad Latinoamericana de Patología (28<sup>th</sup> Latin American Society of Pathology Congress), in 2011.

## MATERIAL AND METHOD

In 2011, 701 studies were presented at the 28<sup>th</sup> Congresso Brasileiro de Patologia (28<sup>th</sup> Brazilian Congress of Pathology) and the 28<sup>th</sup> Congreso de la Sociedad Latinoamericana de Patología (28<sup>th</sup> Latin American Society of Pathology Congress). The abstracts were published in the Jornal Brasileiro de Patologia e Medicina Laboratorial (JBPML), vol. 47, n° 1, Supplement, 2011.

From the original titles of 701 abstracts, an observational retrospective study was conducted, through the month of January 2015, by consulting two medical databases: US National Library of

Medicine on the National Institutes of Health (PubMed) (<http://www.ncbi.nlm.nih.gov/pubmed>) and Scientific Electronic Library Online (SciELO) (<http://www.scielo.org>); for support, the Google Searcher (<http://www.google.com>) was used. In order to include cases that possibly had the title of the abstract altered after the publication and, therefore, not being found in the first search, a second research was performed based on the list of main authors including all the co-authors. Thus, two independent researches were conducted for each article in each database, so, six individual researches were carried out for each paper. When the abstract of the article was complete, it was analyzed to verify whether it corresponded to the article or it was just similar to that presented in the supplement of the meetings where they were originally published.

The following data were collected from the articles: presentation area in the congresses, identification of the study, such as initial title, country of origin, and geographical location of the service which performed it, as well as data of published articles: title, journal and indexing website.

At the end of the consultation, all data were transferred to spreadsheets in Microsoft Excel® 2013, for analysis and interpretation.

## RESULTS

At the 28<sup>th</sup> Congresso Brasileiro de Patologia (28<sup>th</sup> Brazilian Congress of Pathology) and the 28<sup>th</sup> Congreso de la Sociedad Latinoamericana de Patología (28<sup>th</sup> Latin American Society of Pathology Congress), in 2011, 701 articles were presented, of these, 635 were from Brazilian institutions (90.6%), 60 (8.6%) were from foreign institutions, and six (0.8%) were from unknown country of origin. Furthermore, the total of complete articles published was 63 (8.8%), of which 58 (8.1%) were from Brazilian institutions and five (0.7%) were from foreign institutions (**Table 1**).

Among the international articles from foreign countries, we observed that 14 (2%) were from Chile, 12 (1.7%) from Argentina, ten (1.4%) from Colombia, six (0.9%) from Mexico, five (0.7%) from Venezuela, followed by Paraguay and Ecuador, with four articles each (0.6%), three (0.4%) from Spain, and two (0.3%) from the USA (**Table 2**).

**TABLE 1** – Relationship between absolute and relative values of the papers presented as abstracts and articles published, according to nationality

Nationality	<i>n</i>	%	Published articles	%*
Brazilian institutions	635	90.6	58	8.1
Foreign institutions	60	8.6	5	0.7
Unknown country of origin	6	0.8	0	0
Total	701	100	63	8.8

\* Percentage in relation to the total of abstracts submitted.

**TABLE 2** – Relationship between absolute and relative values of the papers presented as abstracts and articles published, according to foreign countries

Country	<i>n</i>	%	Published articles	%*
Chile	14	2	1	1.58
Argentina	12	1.7	0	0
Colombia	10	1.4	2	3.17
Mexico	6	0.9	2	3.17
Venezuela	5	0.7	0	-
Paraguay	4	0.6	0	-
Ecuador	4	0.6	0	-
Spain	3	0.4	0	-
USA	2	0.3	0	-
Total	60	8.6	5	7.92

\* Percentage in relation to the total of abstracts submitted.

Among the Brazilian articles, we highlight those from the Southeast region, accounting for 423 (60.4%) of the total, stressing the significant participation of São Paulo, with 248 (35.4%) of the amount shown in Congresses. At the other end the North, which contributed with only ten (1.4%) abstracts. Other regional interests are in the Northeast with 120 (17.1%), in the Midwest 43 (6.1%), and in the South 39 (5.6%), from the total (**Table 3**).

We can observe that areas of Gastrointestinal Pathology, Uropathology and Pediatric Pathology together accounted for 36.6% of all published articles, which, originally were abstracts submitted to the studied meetings; on the other hand, the Educational, Hematopathology, Transplant Pathology and Endocrine Pathology areas failed to publish a study (**Table 4**).

From 63 published articles, 38 (60.3%) were published in foreign journals and 25 (39.5%) in Brazilian journals. Regarding the databases, Google search engine led with 60 (95.2%) articles found, followed by PubMed with 30 (47.6%) and SciELO with 29 (46%) complete articles published.

**TABLE 3** – Relationship between absolute and relative values of the papers presented as abstracts and articles published, according to the Brazilian states

Brazilian states	<i>n</i>	%	Published articles	%*
São Paulo	248	35.4	26	41.27
Minas Gerais	90	12.8	13	20.63
Rio de Janeiro	81	11.6	3	4.76
Alagoas	31	4.4	1	1.58
Goiás	30	4.3	1	1.58
Bahia	26	3.6	2	3.17
Ceará	24	3.4	3	4.76
Paraná	23	3.3	3	4.76
Distrito Federal	13	1.9	0	0
Pernambuco	10	1.4	3	4.76
Rio Grande do Sul	10	1.4	1	1.58
Sergipe	8	1.1	1	1.58
Paraíba	6	0.9	0	-
Santa Catarina	6	0.9	0	-
Maranhão	6	0.9	0	-
Rio Grande do Norte	6	0.9	0	-
Amazonas	4	0.6	0	-
Espírito Santo	4	0.6	0	-
Piauí	3	0.4	0	-
Pará	2	0.3	0	-
Tocantins	2	0.3	0	-
Roraima	1	0.1	1	1.58
Rondônia	1	0.1	0	-
Total	635	90.6	58	92.01

\* Percentage in relation to the total of abstracts submitted.

**TABLE 4** – Relationship between absolute and relative values of the papers presented as abstracts and articles published, for pathology areas in the studied meetings

Area	<i>n</i>	%	Published articles	%*
Autopsy pathology	32	4.6	3	4.7
Cytopathology	27	3.9	3	4.7
Dermatopathology	43	6.1	2	3.2
Educational	5	0.7	0	0
Gynecologic pathology	56	7.9	4	6.3
Hematopathology	32	4.6	0	0
Infectious diseases	36	5.1	2	3.2
Nephropathology	18	2.6	2	3.2
Neuropathology	24	3.4	3	4.7
Environmental pathology	3	0.4	1	1.6
Cardiac pathology	8	1.1	1	1.6
Surgical pathology	20	2.9	2	3.2
Head and neck pathology	59	8.4	3	4.7
Soft tissue pathology	23	3.3	1	1.6
Bone pathology	15	2.1	2	3.2
Transplant pathology	2	0.3	0	0
Endocrine pathology	10	1.4	0	0
Gastrointestinal pathology	64	9.1	9	14.3
Liver pathology	27	3.9	1	1.6
Breast pathology	60	8.6	5	8
Molecular pathology	20	2.9	1	1.6
Pediatric pathology	25	3.6	6	9.6
Pulmonary pathology	21	3	4	6.3
Uropathology	71	10.1	8	12.7
Total	701	100	63	100

\* Percentage in relation to the total of abstracts submitted.

## DISCUSSION

Publication is the main purpose of a research, it serves to share results of studies with the scientific community; it is interesting that this always happens, however, the results showed a low rate of publications, only 8.8%, as shown in Table 1, derived from the 28<sup>th</sup> Congresso Brasileiro de Patologia (28<sup>th</sup> Brazilian Congress of Pathology), much lower rate than those of international congresses, ranging from 29.8 to 51.2% abstracts published<sup>(7-9)</sup>.

Observing the publication rates in other Brazilian medical meetings, we find the Congresso Brasileiro de Urologia (Brazilian Congress of Urology) in 2003 with a publishing rate of 39%<sup>(10)</sup>, comparable to international congresses, and an average publication rate of 6.3% in other two Congresso Brasileiro de Angiologia e Cirurgia Vascular (Brazilian Congress of Angiology and Vascular Surgery) (2001 and 2003)<sup>(11)</sup>, from the articles presented at the 24<sup>th</sup> Congresso Brasileiro de Cirurgia (24<sup>th</sup> Brazilian Congress of Surgery), achieved 2.6% publication rate<sup>(12)</sup>. Among the studies of similar scope, the last assessed was the 9<sup>th</sup> Congresso Brasileiro de Dor (9<sup>th</sup> Brazilian Congress on Pain), in 2010, with published articles rate of 8.9%<sup>(13)</sup>.

Other articles similar to this show a publication rate equal or higher than 30% found in foreign medical scientific meetings<sup>(14-20)</sup>.

Explanations for these low numbers can reside on possible failures in choosing methodology, as well as publication of the articles previously presented at meetings, with change of title or the names of the authors. In addition, some of the articles analyzed in this study may also be published in the future, as they may be under analysis by a journal, since, in most cases, it is estimates that the publication occurs within two years after its first presentation<sup>(8, 9, 20)</sup>.

Other causes that explain the low percentage of publications are: lack of time to prepare the manuscript (46.5%), study under analysis (31%), co-author responsible for the preparation for the publication (19.7%), co-author not collaborative (16.9%), the publication is not a priority (12.9%)<sup>(11)</sup>. Another possibility for the non-publication is the rejection of the manuscripts due to some requirement of scientific rigor by the journals, which may be greater when compared to the requirement for presentation in congresses<sup>(21)</sup>. Besides, not publishing a research as a complete article in a scientific

journal is a waste of time, human and monetary resources that were invested during the study<sup>(1)</sup>.

Table 2 shows a discreet participation of researchers from foreign countries in the Congresses, only 60 abstracts (8.6%). This low number may be because the meeting took place in a country that does not use Spanish as the official language, unlike the vast majority of Latin America countries.

We must also highlight the fact that the Latin American scientific production is significantly small compared to the Brazilian's. Accordingly to data from the São Paulo State Foundation for Research Support (Fundação de Apoio à Pesquisa do Estado de São Paulo [FAPESP]), 2011, Brazil had 94,622 published articles (55.6% of the total in Latin America). Secondly, is Mexico with 28,233 published articles (16.6% of total). The discrepancy is even more evident when we observe that the state of São Paulo alone has 43,535 (25.5%) publications. Therefore, a single Brazilian state exceeds the second-place México<sup>(22)</sup>. Thus, we verify that the low levels of research in Central America, South America and the Caribbean are also reflected in pathology, resulting in a low rate of articles presented and published.

The results in Table 3 also highlight the huge regional discrepancies between the studies presented; the Southeast leads with 423 (60.4%) submitted abstracts and 42 (66.6%) publications, demonstrating the extreme concentration of scientific studies on pathology in Brazil. This becomes even more evident when we analyze the percentage of papers presented and those that were published, in fact (60% versus 67%). At the other extreme, we find the North, with only ten papers presented (1.4%) and only one (1.58%) publication<sup>(5, 6)</sup>.

This imbalance may be caused by low concentration of pathologists in the North, only 55 professionals (3.2%) of a total of 1,725 pathologists in Brazil, compared with 937 (54.3%) professionals working in the Southeast<sup>(23)</sup>.

Table 4 scales the absolute and relative numbers of the sections or categories of abstracts on the meetings evaluated; stood out as key focus areas, in terms of presentation at conferences: Uropathology (71 abstracts), Breast pathology (60), Gastrointestinal pathology (64), Head and neck pathology (59), and Gynecologic pathology (56). But this relationship does not have support when comparing the levels of publication in journals, noting: Gastrointestinal pathology (14.3% of all published articles), Uropathology (12.7%), Pediatric pathology (9.6%), Pulmonary pathology (6.3%), and Gynecologic pathology (6.3%)<sup>(5, 6)</sup>.

## CONCLUSION

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The rate of publication originated from the 28<sup>th</sup> Congresso Brasileiro de Patologia (28<sup>th</sup> Brazilian Congress of Pathology)

and the 28<sup>th</sup> Congreso de la Sociedad Latinoamericana de Patología (28<sup>th</sup> Latin American Society of Pathology Congress) is still low three years after the meetings compared to the international scientific meetings. However, it is higher than most Brazilian meetings of the same level.

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## RESUMO

**Introdução:** Os congressos médicos são um meio eficiente, embora restrito, de expor a produção científica de uma determinada especialidade. Entretanto, o número de artigos completos publicados resultantes dos trabalhos apresentados em congressos e publicados como resumos é muito inferior ao número dos trabalhos apresentados durante os eventos. **Objetivo:** Dimensionar o número de artigos completos publicados e indexados em bases de dados virtuais, no período de 2012 a janeiro de 2015, apresentados originalmente no XXVIII Congresso Brasileiro de Patologia e no XXVIII Congreso de La Sociedad Latinoamericana de Patología. **Material e método:** Nos eventos mencionados, foram apresentados 701 trabalhos e seus resumos publicados nos anais do congresso. Efetuou-se um estudo retrospectivo observacional consultando as seguintes bases de dados biomédicas: Scientific Electronic Library Online (SciELO) e US National Library of Medicine do National Institutes of Health (PubMed), com o auxílio do buscador Google, tomando por base o título do trabalho e a lista de autores. **Resultados:** Dos 701 trabalhos analisados, 635 (90,6%) eram originados de instituições brasileiras, 60 (8,6%), de instituições estrangeiras e em seis (0,8%) não foram identificadas as instituições de origem. Foram encontrados 63 (8,8%) trabalhos completos publicados e indexados às bases de dados consultadas. As revistas internacionais foram o destino de 38 (60,3%) publicações. **Conclusão:** É relativamente pequeno o número de artigos completos publicados na área de Patologia, resultantes dos trabalhos apresentados nos eventos estudados, nos três primeiros anos após a realização do evento. Esse número é baixo, quando comparado com o de outros congressos internacionais, contudo, é superior ao de alguns congressos médicos brasileiros analisados em estudos semelhantes.

**Unitermos:** congressos; artigo de revista; patologia; bases de dados bibliográficas; resumos de reunião.

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