

Part of the history of surgical research in Brazil

Historical evolution of the journal *Acta Cirúrgica Brasileira* (1986-2005)

Saul Goldenberg*

* Founder of the Journal *Acta Cirúrgica Brasileira* and Brazilian Society for Development of Research in Surgery (SOBRADPEC)

The history of surgical research in Brazil can be divided into two main periods:

First period, before and after 1970

Before 1970, we had a “**story**”, as the past course of a person’s or institution’s life. We can find names of surgeons and their contribution. There were a lot of good surgeons but few researchers on Experimental Surgery or Investigative Surgery and experimentation in laboratory animals.

After 1970, we had a “**history**” in Brazil as a real, methodical record, without subjectivism or individualism. We all know that historical data demands very careful investigation with a very rigorous selection. From 1970, master’s and PhD degree programs in surgery were officially established in Brazilian Universities and recognized by the *Coordination for the Improvement of Higher Education Personnel (CAPES) of the Brazilian Ministry of Education*¹.

Second period, before and after 1986

Related to the publication of the journal

ACTA CIRÚRGICA BRASILEIRA (BRAZILIAN JOURNAL OF SURGICAL RESEARCH)², the official journal of the **BRAZILIAN SOCIETY FOR THE DEVELOPMENT OF SURGICAL RESEARCH**³

Before 1986, there was isolated scientific production about surgery.

After 1986, we had the opportunity of putting together the results of investigation on surgery, improving communication among surgical researchers.

Exclusion and inclusion criteria

It is important to differentiate **clinical medicine** [based on observed symptoms or case presentation] from **experimental work** [based on experiments].

Excluded: Subjective information; lack of evidence; individuality; clinical medicine.

Included: Articles about experimental and investigative surgery published in scientific journals that can be located in different databases; information that can be found in Web of Science and indexed journals.

It is important to emphasize the initiative of the Brazilian government to establish postgraduate programs, developing research all over the country⁴. There are now, in Brazil, 47 master’s and PhD degree programs in surgery, inspected by CAPES every three years. Scientific production has significantly increased, resulting in articles published in indexed journals. This policy motivated the launching of **ACTA CIRÚRGICA BRASILEIRA**, in 1986, which became **the only journal in Latin America that is devoted to original manuscripts on experimental surgery research**.

After its first year (1987), the Journal was indexed in **Latin American and Caribbean Health Science Literature (LILACS) database**, administered by BIREME – Latin American and Caribbean Center on Health Sciences Information – in Brazil, which also receives contribution from Latin American and Caribbean countries and is a specialized center of the Pan-American Health Organization/World Health Organization.

In 1997, the Journal was indexed in the **Scientific Electronic Library Online (SciELO)**, also administered by BIREME⁵.

This led to a great advance in the Journal visibility and accessibility, improving its impact factor.

In 2005, the Journal was indexed in **MEDLINE and PubMed**, produced by National Library of Medicine (NLM), United States; **EMBASE**, produced by Elsevier, Netherlands; and **Latindex system** (<http://www.latindex.org>), administered by *Universidad Nacional Autónoma de México* (UNE).

- It is now waiting to be indexed in Science Citation Index (SCI), Science Citation Index Expanded (SCIE) and Social Sciences Citation Index of Thomson Scientific (the former Institute for Scientific Information – ISI), United States.

All those databases are periodically updated and can be accessed by everyone.

The Journal received important support by:

The Scientific Publication Support Program of the National Council for Scientific and Technological Development (CNPq), Brazilian Ministry of Science and Technology.

On September 17, 1987, the BRAZILIAN SOCIETY FOR THE DEVELOPMENT OF SURGICAL RESEARCH (SOBRADPEC) was founded and *Acta Cirúrgica Brasileira* became its official journal.

The Society has 23 branches in Brazil and the president of each branch is a surgery professor.

Every two years, a Congress on EXPERIMENTAL SURGERY is held in a different state of Brazil. So far, ten meetings happened and each of them had its Supplement published in *Acta Cirúrgica Brasileira*, including abstracts and full text (available since 1997 at www.scielo.br/acb).

Since its beginning, the purpose of SOBRADPEC was to congregate researchers, stimulating scientific investigation and promoting knowledge interchange among either national or international institutions. The society gathers those who cultivate the gift for both teaching and research. Its meetings have contributed to many articles from either PhD or master's thesis of the various postgraduate programs of Brazilian Universities.

Brazilian and Latin American journals are little represented in international databases in relation to the total number of indexed journals. Authors from developed countries tend to cite articles published in their home countries and in their language; however, authors from developing countries mostly cite journals published in developed countries, preferentially those indexed in ISI database. Articles about surgery are published in surgery journals or scattered in journals of other areas or general health sciences⁶.

There are 23 peer-reviewed Brazilian journals devoted to surgery. Articles published in journals covering surgical procedures, clinical investigation or health-related research were separated from those published in journals covering investigative or experimental surgery mainly in laboratory animals⁷.

Latin-American surgery journals can be found in available databases:

Journals covering experimental surgery only:

- *Acta Cirúrgica Brasileira* (Brazil) – in MEDLINE, SciELO and LILACS
- **Journals mainly covering surgical procedures, clinical investigation or health-related research**
- *International Brazilian Journal of Urology* (Brazil) - in MEDLINE, SciELO and LILACS
- *Revista do Colégio Brasileiro de Cirurgiões* (Brazil) – in SciELO and LILACS
- *Revista Brasileira de Cirurgia Cardiovascular* (Brazil) – in SciELO and LILACS
- *Cirugia y cirujanos* (Mexico) – in MEDLINE, SciELO and LILACS
- *Revista Chilena de Cirugía* (Chile) – in SciELO and LILACS
- *Revista Cubana de Cirugía* (Cuba) – in SciELO and LILACS

No surgical information was found in journals from:

Argentina, Uruguay, Colombia, Peru, Venezuela, Costa Rica [*indexed in SciELO*]

The webpage <http://www.scielo.org/> is designed to allow access to SciELO's network of websites. Searches on SciELO's existing collection can involve the whole network or just a particular country. Its statistics module provides the journals' bibliometrics and usage indicators, complementing the international impact indexes. In SciELO Brazil collection, there are also indicators of collaboration between countries (co-authorship) and number of accesses to the journals. The impact factor in SciELO is calculated based on two and three-year periods⁸.

Impact Factor (IF) of selected Brazilian Journals in SciELO (2006)

JOURNALS	Two-year IF	Three-year IF
Arquivos Brasileiros de Cardiologia	0.2066	0.2409
Revista Brasileira de Ginecologia e Obstetrícia	0.1814	0.1812
Revista Brasileira de Anestesiologia	0.1796	0.1905
Revista da Associação Médica Brasileira	0.1653	0.1702
Jornal Brasileiro de Pneumologia	0.1345	*
<i>Acta Cirúrgica Brasileira</i>	0.1133	0.1388
Arquivos de Gastroenterologia	0.0947	0.1214
Revista do Colégio Brasileiro de Cirurgiões	0.0896	*
São Paulo Medical Journal	0.0804	0.0864
Arquivos Brasileiros de Oftalmologia	0.0690	0.0879
Revista Brasileira de Otorrinolaringologia	0.0526	0.0720
<i>Acta Ortopédica Brasileira</i>	0.0460	0.0517
<i>International Brazilian Journal of Urology</i>	0.0417	0.0467
Revista Brasileira de Cirurgia Cardiovascular	0.0297	*
Revista Brasileira Coloproctologia		

SciELO, March 2006

We had the curiosity to verify the impact factor for international journals on **clinical surgery** compared with journals on **experimental surgery**.

Journal *Impact Factor*

CLINICAL SURGERY	
<i>Ann Surg</i>	5.907
<i>Br J Surg</i>	3.580
<i>Arch Surg</i>	3.076
<i>Surgery</i>	2.355
<i>J Am Coll Surg</i>	2.273

EXPERIMENTAL SURGERY	
<i>J Surg Res</i>	1.727
<i>J Invest Surg</i>	1.107
<i>Eur Surg Res</i>	0.750

There is a clear difference between the areas.

In ISI/JCR, there are 11 Brazilian journals covering the health area but **none of them is about surgery**.

Indexed in MEDLINE are 30 Brazilian journals, **four on surgery**:

Acta Cir Bras
Int Braz J Urol
Rev Bras Oftalmol
Rev Bras Otorrinolaringol

Conclusion

Although the percentage of investigative surgery journals in international databases is small, Latin American journals are well represented in regional databases such as LILACS and SciELO, which allow greater visibility. The exposure provided by SciELO led to an increase in citations from *Acta Cirúrgica Brasileira* within the universe of Brazilian journals. The availability of full texts at SciELO collection will certainly contribute to an increase in the number of accesses and citations of articles published in its journals, also by the international scientific community.

References

1. Available from URL: <http://www.capes.gov.br>
2. Available from URL: <http://www.scielo.br/acb>
3. Available from URL: <http://www.sobradpec.org.br>

4. Sampaio F. Pesquisa em cirurgia, pós-graduação stricto sensu e sistema de avaliação da Capes. Rev Col Bras Cir. [periódico na Internet] 2006;33(5):343. Disponível em URL: <http://www.scielo.br/rbc>.
5. Packer AL, Biojone MR, Antonio I, Takenaka RM, Garcia AP, Silva AC, Murasaki RT, Mylek C, Reis OC, Delbucio HCRF. SciELO: uma metodologia para publicação eletrônica. Ci Inf. [periódico na Internet] 1998; 27(2): 109-21. Disponível em URL: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0100-19651998000200002&lng=pt&nrm=iso
6. Packer AL, Meneghini R. Articles with authors affiliated to Brazilian institutions published from 1994 to 2003 with 100 or more citations. I: the weight of international collaboration and the role of the networks. An Acad Bras Ciênc. [serial on the Internet] 2006 Dec; 78(4):841-53. Available from URL: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0001-37652006000400017&lng=pt&nrm=iso
7. Población DA, Goldenberg S, Montero EFS, Moreira MB, Pellizzon RF. Revistas brasileiras publicadoras de artigos científicos em cirurgia. I - Características estruturais e administrativas das revistas. Acta Cir Bras. 2002;17(6):359-69. Disponível em URL: <http://www.scielo.br/acb>
8. Goldenberg S, Castro RCF, Azevedo FRM. Interpretação dos dados estatísticos da SciELO (Scientific Electronic Library Online). Acta Cir Bras. [periódico na Internet] 2007;22(1):1-7. Disponível em URL: <http://www.scielo.br/acb>

Correspondence:

Prof. Saul Goldenberg
 Alameda Rio Claro, 179/141
 01332-010 São Paulo – SP BRAZIL
sgolden@terra.com.br