

# Technology in service of science

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Scientific journals are an example of the integration of science and technology. Since the first publications in the 17th Century, the exchange of information between the two has been changing. The information took months to be available before, but a few mouse clicks today are enough to access an article even before its publication. And future changes are inconceivable with the continuous evolution of information technology.

The Revista Brasileira de Cirurgia Cardiovascular/ Brazilian Journal of Cardiovascular Surgery (RBCCV/BJCVS) is an example. It began as a biannual journal in 1986, and became quarterly. In 1997, was made available on the Internet through Scielo, and in 2005, it was made available on its own website.

In this issue, we move forward, and for the first time, we are offering a special “premium” to members of the Brazilian Society of Cardiovascular Surgery (BSCVS) and other scholars and institutions that receive the magazine: A DVD showing a total cavopulmonary operation, using an extracardiac tube without cardiopulmonary bypass, performed by Associated Editor Ulisses Croti, in collaboration with me. In addition to the written report on page 429, the reader will have the opportunity to follow the progress of the procedure, ideally increasing knowledge and sparking great interest. The video will also be available on the BJCVS website, at the following link: [http://www.rbccv.org.br/video/Cavopulmonar\\_total.asp](http://www.rbccv.org.br/video/Cavopulmonar_total.asp).

Our plan is to repeat this initiative in future editions. And now, I call on the colleagues who have interesting cases recorded on video to contact us in order to make them available on our website. Unfortunately, with technology demands and the cost of making it viable, we have to rely on new sources of economic support.

The Journal website ([www.rbccv.org.br](http://www.rbccv.org.br)) is constantly being updated and improved. In order to send only pictures with a resolution that meets the Norms of BJCVS (300 dpis), lower resolution pictures will be blocked, which might impair the quality of the printed edition. Soon, the system will refuse descriptors (keywords) that are not part of the DeCs (Health Sciences Descriptors) or Mesh (Medical Subject Headings), which means that a submission may not be accepted until the correct terms are chosen. Remember that the website has a link to the DeCs and Mesh to assist the author while he prepares the manuscript. These changes will provide better quality control of the BJCVS, which is

essential to continuing the Journal’s indexation for Medline and future indexations in other databases, such as Reuters.

We are also finalizing arrangements to establish the Continuing Medical Education (CME) online system, as I mentioned in the editorial of BJCVS 23[2]. Website visitors will see a certain number of articles marked with an icon with the acronym (CME). When visitors click on it, a questionnaire about the content will open. After they answer it - and if the answers are right - a certificate will be issued, which will give points to obtain and renew the Title (still subject to approval). The reader may try answering the questions again within a limited time of 15-minute increments per hour. When visitors reach this stage, the right answer will be shown and the applicant may access the text, in which there will be in evidence the paragraphs that correspond to the questions. This kind of continuing education is pro-active and does not aim to fail anyone, but rather aims to encourage article review and comprehension.

On August 14<sup>th</sup> and 15<sup>th</sup>, we had a productive meeting with our programmer, Mr. Daniel Marcotto, a representative of GN1 (the company that operates our website). Dr. Alexandre Croti - Associated Editor - and Mr. Ricardo Brandau - Executive Editor - and I all participated in this meeting. I am very grateful for their effective collaboration. We were able to browse the pilot of the new system. Tests were performed and suggestions were given to improve the CME. It seems ready to be established, and we want to do it soon. For this new kind of education, quality articles and the collaboration of authors will be essential to making the questions that will be offered to candidates.

This initiative – a first of its kind in our country - is further evidence that Brazil may lose the “the inferiority complex” that writer and dramaturgist Nelson Rodrigues described for the country’s attitude toward popular first world countries when it comes to science and technology. Numbers released by the Ministry of Education and CAPES (Coordination for the Improvement of Higher Education Personnel) in July confirmed the Brazilian scientific production as the 15th in the world in 2007, a status achieved the year prior.

With 19,428 articles published in 2007, our country accounts for 2.02% of the total scientific production in the world, beating out Switzerland (1.89%) and Sweden (1.81%) and coming close to the Netherlands (2.55%) and Russia (2.66%). Among Latin American countries, we hold an even

more prominent position. The nation that ranks second is Mexico, which in the 28th position worldwide, with 7,469 articles published in the same period, corresponding to 0.78% of production in the world. We can be proud that the field of health sciences is the main contributor in this challenging championship! Medicine is still prominent, especially in domestic production: 3,745 articles were published in 2007.

The chairman of CAPES, Prof. Jorge Guimarães, emphasized some reasons for the country's high rank: Scientific initiation programs, improvement in our graduate schools, the formation of research groups, international cooperation and the CAPES Scientific Journals Gateway, which offers more than 12 thousand journals for free to Universities and Research Centers. "The world doubled its scientific production from 1981 to 2006. Brazil increased theirs ninefold," he said.

But these positive numbers should not cause us to settle and simply brush our problems under the rug. A report by Professor Saul Goldenberg, originally published on the website of the Brazilian Association of Scientific Editors (ABEC) and reproduced in this Journal in the Editorial on page VIII, reports his difficulties as editor of *Acta Cirúrgica Brasileira*. Difficulties like these are felt by all editors in Brazil to some extent. I recommend a careful reading of this excellent report.

Also, as a warning to authors and reviewers, the BJCVS has reproduced an article on page 396 written by Dr. Mário

José da Conceição and originally published in the *Brazilian Journal of Anesthesiology*. The article emphasizes the misunderstandings that can come from the improper use of statistics in scientific studies.

We also have two other editorials in this issue with topics that are of great interest to cardiovascular surgeons. In one, on page IX, Dr. Telmo Martino Bonamico reports on the benefits of carotid endarterectomy. On page III, Dr. Domingos Sávio de Souza and Dr. Walter Gomes discuss the future of the saphenous vein as a graft in coronary artery bypass grafting.

At closing, I would like to call attention to the piece written for the late Dr. José Carlos de Andrade by Professor Antonio Carlos Carvalho of UNIFESP on page 315. In this dedication, there are noteworthy and meaningful words about the life and work of this devoted physician, who, even while fighting against cancer, persevered and even continued working, leaving an example for his family, friends, and followers.

My warmest regards,



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