

Collaborative Retina in Latin America: How Did We Get Here?

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Although Latin America has a large population of poor people, advances in all professions and services can be found in the middle-class population, who are generally highly educated and well trained. Even the provinces have well-equipped, well-staffed medical facilities that provide satisfactory medical services. The most advanced medical training and services are provided in the capital cities, where high levels of technology are available. Most training programs in ophthalmic subspecialties are aiming to achieve the standards of the most competent North American institutions.

Health care in Latin America is basically divided into two large parts: 1) a government-based public care sector; 2) a private practice sector. Approximately 80% of hospitals are government-owned and very few are in private hands. There is insufficient government spending, however, on education and health care. World spending on health, according to the World Bank and the United Nations' World Health Organization, was 10.2% of global gross domestic product (GDP) in 2003. Typical figures for Latin America range from Mexico's 6.2% to 7.6% in Colombia and Brazil and 8.9% in Argentina. In Asia, Europe, and the United States, spending on health ranges from 7.9 to 15.2% of global GDP. Furthermore, less than 5% of health care spending is directed to ophthalmology in Latin America and worldwide. Higher priorities include obstetrics and pediatrics. As a result, mostly private groups have financed the enormous changes and advances that have characterized ophthalmology in the region. As the budgets of governmental institutions progressively dwindle, there is a widening gap between public and private institutions. In private facilities, a patient can find the best care possible anywhere in the world with the most advanced equipment and well-trained personnel. In public facilities, however, it is rare to find good equipment and, although there are well-trained and highly-motivated personnel, they have little chance

to help their patients with the available resources.

Notable exceptions include the Asociación para Evitar la Ceguera in Mexico City and the Instituto Nacional de Ojos in Lima, Peru.

The significant achievements made by ophthalmologists in Latin America have been reached mainly through the extensive teaching programs either organized or sponsored by the Pan American Association of Ophthalmology (PAAO). The PAAO (www.paa.org) has also been responsible for stimulating a sense of pride among ophthalmologists who participate in elevating the standards of medical practice in their countries. Retina and vitreous has developed as a subspecialty in Latin America, thanks to those few who had the opportunity to train in the United States and Europe. They were generous enough to share their knowledge and launch subspecialty programs in our countries. Most residents today understand the importance of fellowship subspecialty training. However, only a few succeed in finding a place in the competitive programs in Latin America, the United States, and Europe.

LATIN AMERICAN GROUP OF OCULAR ANGIOGRAPHY, LASER AND VITREO-RETINAL SURGERY

During the second Venezuelan Congress of Ophthalmology in 1977 in Caraballeda, a group of ophthalmologists from Latin America decided to create a new society of specialists dedicated to exchanging knowledge about fluorescein angiography and laser techniques in meetings to be held every 2 years.

The first Latin American Group of Ocular Angiography, Laser, and Vitreo-retinal Surgery (GLADAOF) Symposium was held during the third Venezuelan Congress of Ophthalmology in 1981 in Caracas. The members of the founding committee were Arturo A. Alezzandrini (Argentina), Alejandro Dalma (Mexico), Cristiano Barsante and Hilton Rocha (Brazil), Darío Fuenmayor-Rivera (Venezuela), Alvaro Rodríguez (Colombia), and Pedro Saénz (Peru). In 1988, GLADAOF joined the PAAO, making

it the first subspecialty society to be affiliated to the PAAO. Since then, all other subspecialty societies created in Latin America have become affiliated to the PAAO.

In the late 1980s and early 1990s, young retinal specialists from several Latin American countries expressed their interest in participating in "Forums." In Chile in 1994, GLADAOF decided to invite all retinal specialists (including vitreoretinal surgeons) to become members. GLADAOF organized a total of nine Forums, twice in Argentina, twice in Brazil and the rest in Venezuela, Peru, Mexico, Chile, and Colombia.

THE PAN-AMERICAN RETINA AND VITREOUS SOCIETY (PRVS)

The Pan-American Retina and Vitreous Society was born during the XXIV Pan-American Congress of Ophthalmology in San Juan, Puerto Rico (March 28-April 1, 2003) (Figure 1). A group of GLADAOF members with the blessing of the PAAO Board of Directors decided to create the PRVS from GLADAOF as the official Retina and Vitreous subspecialty society affiliated to the PAAO.

The first Congress of the PRVS was held in Quito, Ecuador in June 2004. The second Congress of the PRVS (and 11th GLADAOF Forum) was held in Cartagena de Indias, Colombia in May 2006. The third Congress of the PRVS (and 12th GLADAOF Forum) will be held on Margarita Island, Venezuela in May 2008 (www.sprv.org).

The PRVS has quickly become the premier retina and vitreous organization in Latin America. Its objectives are to continue to follow the GLADAOF tradition of academic excellence and, indeed, to improve it where need be. The PRVS' goals are to maintain and improve the scientific quality of our biannual congress, to publish educational materials (books) in Spanish, to sponsor combined meetings with other multinational societies in the field, to stimulate the scientific contribution to the literature published in Latin America, and to improve the academic curricula of the residents and fellows in our countries.

THE PAN-AMERICAN COLLABORATIVE RETINA STUDY GROUP

For a number of years, several Latin American vitreoretinal specialists have actively participated in meetings across the globe such as the American Academy of Ophthalmology (AAO), the American Society of Retina Specialists (ASRS), and the Association for Research in Vision and Ophthalmology (ARVO). Linked by a common language and cultural background, many of us started having informal discussions in the hallways. This led to disagreements, agreements, dinner, drinks, and lasting friendships. The participation of Latin American vitreoretinal specialists in those meetings, however, was basic-



Figure 1. The Pan-American Retina and Vitreous Society (PRVS)'s logo (A). The founders of the PRVS at XXIV Pan-American Congress of Ophthalmology in San Juan, Puerto Rico (March 28-April 1, 2003). Standing from left to right: J. Fernando Arevalo, MD FACS, David Lozano-Rechy, MD, Ivan Batlle, MD, Lihteh Wu, MD, Virgilio Morales-Canton, MD, Armando Sandoval-Vaca, MD, Francisco J. Rodriguez, MD, Jose L. Guerrero-Naranjo, MD. Sitting from left to right: Hugo Quiroz-Mercado, MD, Maria H. Berrocal, MD, Michel E. Farah, MD (B).

ly an individual effort.

Currently, there are more than 110 periodicals in the field of ophthalmology and vision science. The dominant nationality of authors who publish in these research publications is the United States. Although the level of ophthalmic practice in Latin America is of high quality, the contribution from our region to the ophthalmic literature has always been scant. Some of us wished to increase the contribution to the literature coming from Latin American countries, and to demonstrate the advances achieved in our subspecialty.

Over the past few years, pharmacotherapy has become an important part of treating vitreoretinal diseases. Unfortunately, many of these new treatments are out of reach for Latin American patients due to the escalating costs. Several of us became frustrated with this growing treatment gap between the developed world and Latin America. Thus, in 2005 at the Annual Meeting of the American Society of Retina Specialists Meeting in Montreal, Canada, we began exploring the possibility of scientific collaboration to try to find alternative treatments for our patients and to publish our



Figure 2. The Pan-American Collaborative Retina Study Group (PACORES)'s logo (A). The founders of PACORES at the World Ophthalmology Congress in Sao Paulo, Brazil (February 2006). Standing from left to right: Federico Graue-Wiechers, MD, Mario Saravia, MD, Lihteh Wu, MD, Jose A. Roca, MD, J. Fernando Arevalo, MD FACS, Mauricio Maia, MD, Virgilio Morales-Canton, MD, Michel E. Farah, MD, Marcos Avila, MD. Sitting from left to right: Hugo Quiroz-Mercado, MD, Francisco J. Rodriguez, MD, Maria H. Berrocal, MD, Jans Fromow-Guerra, MD, Jose Dalma Weiszhausz, MD (B).

work. A research group from Latin America based on a combination of academic achievements and friendship was envisioned at the AAO Annual Meeting in Chicago in October 2005. The bevacizumab (Avastin, Genentech) "boom" provided the perfect opportunity for this project to flourish. During the World Ophthalmology Congress in Sao Paulo, Brazil, February 2006, a group of 11 centers from eight countries was officially established as the Pan-American Collaborative Retina Study Group (PACORES) (Figure 2). Recently, we have expanded to a group of 12 centers from nine countries with the inclusion of Fundacion Los Andes of Chile.

COLLABORATIVE WORK DEBUTS

The 2006 Bascom Palmer Angiogenesis Meeting served as the first public forum of our work. Since then, several scientific papers and posters have been presented at international meetings such as the 2006 Annual ARVO Meeting, the 2006 PRVS (Cartagena, Colombia, May 2006), the Asia-Pacific Academy of Ophthalmology

(Singapore, June 2006), the Joint Meeting of ASRS/European VitreoRetinal Society (Cannes, France, September 2006), the Joint Meeting of the Club Jules Gonin/Retina Society (Cape Town, South Africa, October 2006), the AAO Annual Meeting (Las Vegas, NV, November 2006), the 2007 Bascom Palmer Angiogenesis Meeting, the Pan-American Congress of Ophthalmology (Cancún, México, June 2007), and the AAO Annual Meeting (New Orleans, LA, November 2007). The number of presentations on behalf of PACORES international meetings is already 52. The papers presented there are already under consideration and five have been published.¹⁻⁵

Our preliminary work shows that by pooling talent, hard work and sound scientific principles, it is possible to produce scientific work in an underdeveloped region of the world. In addition, PACORES has started to be imitated by other subspecialty groups affiliated to the PAAO. We believe that our efforts are starting to change the paradigm of ophthalmology in Latin America and may help raise both the academic level of our research and ophthalmology as a whole. In the end, we hope that this will benefit the health of our patients—our ultimate goal. ■

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