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Commentary

Retinal Research in Latin America: How Did We Get Here?

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ABSTRACT

Among the numerous contributions by the Pan-American Association of Ophthalmology (PAAO) to the improvement of ophthalmology in Latin America, it has played an invaluable role in the development of the retina and vitreous subspecialty in the region.

The quality of the research published in Latin America demonstrates the development of the retina subspecialty at this region and also the worldwide collaboration pioneered by PAAO and the Pan-American Collaborative Retina Study Group (PACORES).

We would suggest further academic relationship at the regional as well as international levels as well as funding research institutes to assist retinal researchers in the region since it is generally thought that there is frequently a lack of government funding at all levels, from patient education to support for health teams to tertiary health care centers.

KEY WORDS

Retinal Research; Latin America; Association for Research in Vision and Ophthalmology; Pan-American Association of Ophthalmology

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In Latin American countries, medical services including ophthalmology, conform to a particular scenario: despite the vast majority of people being low-income individuals with very restricted access to prompt and good-quality health services, there are a number of health systems with well-equipped and well-staffed facilities. These health systems offer so-called “first-world” medical services, and they primarily serve the growing middle-class population.

There are also regional divides within Latin American countries. In major cities, where greater amounts of modern technology and the highest standards of ophthalmic subspecialty care are available, young local and foreign ophthalmologists can train in fellowship programs that encourage and teach them to achieve standards that are common to North American and European institutions. In contrast, it may not be possible to reach these standards in rural and other nonurban settings, where advanced technology is often not available.

Health care in Latin American is divided into two main sectors: government-funded services and private

practice. It is generally thought that there is frequently a lack of government funding for health care at all levels, from patient education to support for health teams to tertiary health care centers. This background assists in explaining why private groups and individuals have been almost exclusively responsible for the advances and achievements in ophthalmic knowledge and clinical practice in Latin America (1).

Among the numerous contributions by the Pan-American Association of Ophthalmology (PAAO) to the improvement of ophthalmology in Latin America, it has played an invaluable role in the development of the retina and vitreous subspecialty in the region. It has accomplished this by continually sponsoring and organizing teaching programs and meetings since its inception.

Starting in the second half of the 20th century, after much effort, a small number of Latin American ophthalmologists traveled to the United States and Europe for training in the retina and vitreous subspecialty. As a result, these ophthalmologists brought home priceless knowledge to share with their colleagues, thereby vastly improving the level of vitreoretinal research and clinical practice in their homelands. In addition, numerous formal fellowship programs that focus on the vitreoretinal subspecialty have been set up across the region, thereby expanding young surgeons' opportunities to train in this subspecialty without leaving their countries of origin. However, even today, there is a very competitive environment in Latin America, the United States, and Europe, which makes it hard for interested ophthalmologists to secure places in fellowship programs.

Any description of the retina and vitreous subspecialty in Latin America must make mention of four groups that have helped to develop the subspecialty in the region. In order of the date on which they were founded, these are the PAAO, the Latin American Group of Ocular Angiography, Laser, and Vitreoretinal Surgery (GLADAOF), the Pan-American Retina & Vitreous Society (PRVS), and, lastly, the Pan-American Collaborative Retina Study Group (PACORES), of which the author of this article is a member.

PACORES was founded in 2006 during the World Ophthalmology Congress in Sao Paulo, Brazil, and it currently involves 19 centers in 13 Latin American countries. PACORES's main goal is to promote work aimed at continually improving the medical care provided to our patients. The work done by PACORES demonstrates that it is possible to carry out high-quality scientific work in a developing region. PACORES has published more than 40 papers, making it one of the most prolific multicenter ophthalmology groups in the world. This has been accomplished by bringing together talented researchers, working hard, encouraging camaraderie, and strictly following scientific principles. Other ophthalmic subspecialty groups that are affiliated with the PAAO have now started to imitate PACORES initiatives. In addition, PACORES is viewed with admiration in North America, Europe, and Asia. Our efforts are helping to raise not only the quality of the group's own research, but also that of ophthalmic researchers more generally across Latin America. As a result, PACORES is altering the traditional negative perceptions of the research carried out in our specialty in the region.

The high-quality retinal research conducted in our region is such that it has been recognized by the Association for Research in Vision and Ophthalmology (ARVO). The first ARVO@PAAO meeting was held in Bogota, Colombia, in 2015, and we are currently planning a new meeting at the 2017 PAAO Congress in Lima, Peru, which will focus on diabetic retinopathy. The idea is to explore the current status of vision and ophthalmic research, and the goal of the 2017 ARVO@PAAO meeting is to present basic and translational research to the clinical practitioners who are members of PAAO during the Pan-American Congress of Ophthalmology (2).

The etiology of retinal diseases (including diabetic retinopathy) has been found as multifactorial. Therefore, research on pathogenesis and molecular pathways involved in the development of these disease has led to the development of therapies, which are now commonly applied in clinical ophthalmology (3,4). Additional promising therapeutic agents are currently being evaluated in clinical trials, and additional molecular targets are being evaluated. In particular, retinal imaging

is key to advancing our understanding of retinal diseases. Combined therapies that target multiple pathways may yield synergistic treatment effects, as several cytokines may be involved in the development of individual retinal diseases. The quality of the research published in Latin America since the turn of the century demonstrates the development of the subspecialty in our region and also the worldwide collaboration pioneered by PAAO and PACORES. The highest compliment is to observe the model being copied worldwide, and to see the benefit that is has brought to our patients.

DISCLOSURE

Conflicts of Interest: None declared.

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