

Unilateral Optic Neuritis in Cuban Patients with a History of Arbovirus Infection


To the Editors:

Seven patients with clinical signs consistent with optic neuritis were diagnosed and treated in the neuro-ophthalmology service of the Hermanos Ameijeiras Clinical-Surgical Teaching Hospital in Havana, Cuba from August 6 through November 16, 2018. Clinically, optic neuritis should be distinguished from epidemic optic neuropathy, which occurred in Cuba in the 1990s, as described in a 2011 *MEDICC Review* article.[1]

Four of the patients were men, three women; and average age was 33 (23–44) years. All were from the western provinces of Havana and Matanzas, and three lived in the Ciénaga de Zapata area, a wetland ecosystem in southern Matanzas. Four patients reported signs and symptoms suggesting that they had recently suffered from arbovirus infection (dengue or chikungunya)[2] and one confirmed a dengue infection the previous month. All patients reported sudden, painless and unilateral vision loss one or two weeks after recovering from fever. The neuro-ophthalmological examination showed severe impairment of both visual acuity and color vision. Centrocecal scotoma was the most frequently observed campimetric defect.

All patients were hospitalized and given intravenous methylprednisolone and B-complex vitamins. Treatment was considered satisfactory if 15 days after completion patients presented improvement of at least two lines on the Snellen chart. We observed that treatment effectiveness depended largely on time elapsed between symptom onset, initial diagnosis and treatment initiation. Patients who received treatment during the first seven days of the condition's evolution recovered satisfactorily, but those who received treatment after this period did not.

We wish to alert family doctors, clinicians, ophthalmologists and epidemiologists of the circumstances that make these cases particularly interesting from a clinical-epidemiological perspective: that is, their relative spatial concentration as well as temporal

concentration (noting that, historically, only one to two optic neuritis cases are usually treated in our service annually), and above all, the clinical history suggestive of arbovirus infection, whose relationship with the occurrence of parainfectious optic neuritis has been established.[3] The alert also includes the recommendation to begin treatment immediately for patients presenting with vision loss. It is noteworthy that in a similar time span (September–November 2019) we have received three new patients presenting with optic neuritis and a history of arbovirus infection, two of whom delayed seeking medical attention and whose vision loss is now irreversible, due to signs of partial optic atrophy. 

1. Mills C. In the eye of the Cuban epidemic neuropathy storm: Rosaralis Santiesteban MD PhD. *MEDICC Rev.* 2011 Jan;13(1):10–5.
2. Espinal MA, Andrus JK, Jauregui B, Hull Waterman SH, Morens DM, Santos JI, et al. Emerging and reemerging Aedes-transmitted arboviruses infections in the region of the Americas: implications for health policy. *Am J Public Health [Internet]*. 2019 Mar [cited 2019 Sep 2];109(3):387–92. Available from: <https://doi.org/10.2105/AJPH.2018.304849>
3. Yip VC, Sanjay S, Koh YT. Ophthalmic complications of dengue fever: a systematic review. *Ophthalmol Ther [Internet]*. 2012 Dec 1 [cited 2019 Sep 30];1:2. Available from: <https://link.springer.com/content/pdf/10.1007%2Fs40123-012-0002-z.pdf>

Odalys Cáceres-Toledo, physician with dual specialties in ophthalmology and family medicine; associate professor, Neuro-ophthalmology Department, Hermanos Ameijeiras Clinical-Surgical Teaching Hospital (HHA), Havana, Cuba.

María Cáceres-Toledo (alvaca@infomed.sld.cu), ophthalmologist with a doctorate in medical sciences, full professor and senior researcher, Neuro-ophthalmology Department, HHA, Havana, Cuba.

Runze Zhao, ophthalmologist, Neuro-ophthalmology Department, HHA, Havana, Cuba.

Yarlín La O-Lozano, optometrist, Neuro-ophthalmology Department, HHA, Havana, Cuba.

Irinia Díaz-Ríos, optometrist, Neuro-ophthalmology Department, HHA, Havana, Cuba.

Research and Scientific Publishing: Essential Ingredients to Health Sciences Training

To the Editors:


A paper published in *MEDICC Review* by Ibraín Corrales-Reyes and colleagues concludes that Cuban health sciences universities' curricula should include subjects related to scientific writing and publishing as a way to inspire students to generate scientifically valuable research projects.[1] Diabetes, to which the authors make specific reference, is followed in Cuba at the primary care level, where ideally its behavior should be a source of information to update local physicians who have close ties with the communities where they work. As future actors in the global health arena, medical students should learn the necessary strategies and acquire the necessary motivation to in time develop a medical practice based on information obtained through their

own experiences, which could also serve as reference points for other countries in the region and the world.

In the Dominican Republic, scientific research and publication are subjects scarcely addressed by most medical schools. Although the basic principles of research methodology are included in the medical curriculum, few students opt to pursue postgraduate studies in research or to collaborate in local research projects. As medical students, we believe that this is simply the result of inadequate training—dating back years—that considers scientific publication as a nearly unreachable goal, if not impossible altogether. In addition, we find professors who do little to foment critical analysis or to provide students with more modern, creative views of research itself.

Letters

Thus, we agree that any agenda for scientific development demands changes in health sciences curricula, in which research practice must be included, to usher in an era of “research, teaching and learning.”[2] Scientific research should be incorporated into all Latin American health sciences curricula, to be taught by instructors capable of inspiring and motivating students to follow research paths in their respective professions. This could be accomplished in several ways: one might be to revamp already existing programs on research techniques and benefits; another might be to include workshops and seminars on scientific writing and publication.

Perhaps as an extreme alternative, publication of at least one scientific paper should be required for medical students to earn their degrees. These recommendations share the common objective of ensuring that universities prepare physicians in particular to carry out research on key aspects of population health. 

1. Corrales-Reyes I, Fornaris-Cedeño Y, Dorta-Contreras A, Mejía C, Pacheco-Mendoza J, Arencibia-Jorge R. Cuban scientific production on diabetes, 2000–2017: peer-reviewed publications, collaboration and impact. *MEDICC Rev.* 2019 Jan;21(1):17–25.
2. Sánchez-Duque JA, Gómez-González JF, Rodríguez-Morales AJ. Publicación desde el pregrado en Latinoamérica: dificultades y factores asociados en estudiantes de Medicina. *Inv Ed Med.* 2017 Jun;6(22):104–8. Spanish.

Clarissa Fabiola Lapaix-Núñez (clarissalapaix@gmail.com), *School of Health Sciences, Autonomous University of Santo Domingo (UASD), Santo Domingo, Dominican Republic; Dominican Medical Students Organization (ODEM-IFMSA), Santo Domingo, Dominican Republic.*

Yorlín Melina Suárez-Piña, *Autonomous University of Santo Domingo (UASD), Santo Domingo, Dominican Republic; Dominican Medical Students Organization (ODEM-IFMSA), Santo Domingo, Dominican Republic.*