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Multiple Sclerosis in Latin America Reality and Challenge

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Multiple sclerosis (MS) has lately become visible in Latin America (LA), provoking substantial interest despite its apparently low regional frequency. This condition carries a notable socioeconomic impact to the area. The concern arises from the current global economic situation and the fact that most of these countries remain in development, facing even more uncertain possibilities to provide a solid health system. MS is barely recognizable by the LA health officials, and therefore not considered as a priority disease for study or institutional support. While the disease is expected to typically afflict Caucasians of European ancestry, in LA the affected populations are the 2 most representative (but heterogeneous) regional racial groups: American Mestizos and African Americans [1]. At the dawn of the 16th century, genetic dissemination, whether through racial intermixing by migration or as result of historic sociological and geopolitical factors, started to evolve in the Americas. As some observations have suggested, these phenomena have allowed the acquisition of 'European susceptibility' to MS by Latin American populations [2]. Conversely, lack of MS identification in non-mixed Amerindians is a consistent observation in the region [3]. This apparent protection has hypothetically been adjudicated to their ancestral Asian (Mongoloid) genes [4].

In this issue Gracia et al. [5] (*Prevalence and Incidence of Multiple Sclerosis in Panama*) provide a realistic statistically based report of the frequency of MS in a tropical country. They also share pharmacoeconomic concerns [6] in view of the costs inflicted by MS to financially fragile health systems. In their series, for 60 subjects of the total of 170 (35.29%) receiving immunomodulatory therapy, the estimated monthly cost per patient was USD 1,200. Although the report does not discuss additional expenditures potentially exerted by symptomatic management, rehabilitation procedures and indirect costs, most of MS care in Panama is absorbed by the Ministry of Health and by the Social Security Fund. Patients that provided financial information (68.2%) reported a family income of less than USD 1,000 per month.

This study was a retrospective assessment, utilizing an instrument to gather epidemiological data applying the Poser or the McDonald Criteria to determine MS diagnosis. MR studies were performed in 92.0% of the patients. Strict McDonald Criteria would require frequent MR studies in early MS until the dissemination of lesions in space is established. Still, in many countries in LA and Eastern Europe, the Poser Criteria continue to be employed, while regional adaptations to the more modern and more sensitive McDonald's proposal are being debated [7]. There are many obstacles to obtaining MR studies in remote areas of the underdeveloped world. Logistics and affordability contribute to limited adequate access in many regions of the world, including LA.

Despite the low prevalence of MS in Panama (5.24/100,000) its incidence appears to fluctuate with a increasing trend in the epochs studied (0.28–0.61/100,000) and with a greater presence among Mestizos (49.4%), followed by Caucasians (30.3%), 'ethnicity not determined' (12.4%) and African Americans (7.9%). Latin American surveys involving self-described ethnicity frequently result in a portion of inadequate answers (insufficient knowledge or awareness of terminology among the responders?). People of clear 'African descent' or carrying some degree of African genetics constitute at least a quarter of the population of Panama. The absence of Amerindians in this series conforms to common observations from the rest of the continent. Approximately 6% of the populations of Panama are Native Americans [8].

The overabundant distribution of MS among women in Panama, 8.94/100,000 compared to 1.60/100,000 for men, indicates a female/male ratio of practically 8:1 ($p < 0.001$). Greater disparities in gender ratio among Latino women with MS are commonly described in LA [9] compared to the traditional 2:1 ratio reported in Caucasians. The reasons for these disproportions are not known.

In other areas of the hemisphere, MS frequencies appear to be increasing [10, 11]. This occurrence, although real, may also be associated to the advent of MRI technology in the region, the relative increase of the number of neurologists, modern medical education and enhanced public awareness [12].

As the authors state, despite the scarcity of epidemiological information and the diversity of epidemiological techniques employed in LA, that interest has been ignited by the creation of the Latin American Committee for Treatment and Research in MS (LACTRIMS). The Panamanian contribution to the study of MS in the region could be a stepping stone for a uniform continental strategy. It is imperative to realistically assess the presence of a disease that already brings a clear challenge to the health systems in the Americas.

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