Neurotrauma Care: A Challenge in the Americas

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The present special issue on neurotrauma care from the Pan-American Journal of Trauma, Critical Care, and Emergency Surgery, fills a critical gap in the understanding of the impact of neurotrauma care within the trauma surgery community in the Pan-American region. According to the World Health Organization data, the burden of injuries in the region represents the most important number of victims from 5–45 years, and the fatality is totally driven by neurotrauma, being present in near to 90% of the polytrauma deaths (Fig. 1).¹

This special issue was requested urgently and fortunately, the Editor-in-Chief accepted the offer to open a call for neurotrauma-related articles from the region.

Near to 90% of neurotrauma patients worldwide are in Latin America, Africa, and South-East Asia. Most of them are in middle and low developing indexed regions.² Motor vehicle-related incidents are the leading mechanism, mostly associated with motorcycle accidents.^{3–5} The economic and social impact is neglected in most countries of these regions, reflected in the lack of organized trauma care systems defined by low engagement of these topics in the present and future political agendas.

Multidisciplinary and multi-institutional action is required to fill these gaps for capacity building in trauma and neurotrauma

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organized care at least in the Pan-American region. Prevention, education, research, and social leadership are fundamental skills that all the trauma care providers from the region need to promote in order to improve neurotrauma care for the next generations.^{6,7}

Trauma kills every day more people than COVID-19 but the resources allocated to both problems are totally different. Research in COVID-19 exponentially grows every day compared with

Fig. 1: Burden of injuries in Latin America. (Source: global burden of diseases project website)

The burden of injuries in Latin America is represented in green (red line square). The left one represents the impact of the problem in population from 5 to 14 y/o, compared with other neurological conditions like brain cancer or epilepsy (small blue squares highlighted by red lines), and the right one represents the burden of the problem in population from 15 to 45 y/o, compared with other neurological conditions like brain cancer, stroke, or epilepsy (highlighted in the small blue squares). The central pyramid represents the burden of injuries (green bars) in the 5–14 y/o population (male left/female right) compared with other diseases in blue and red bars on every one of the LATAM region countries. Source: GBD analytics web site (<https://www.healthdata.org/>)

research in neurotrauma, absorbing the few available resources allocated in the region. The promotion of big data analysis using region-wide trauma and neurotrauma clinical registries is the first step. Fortunately, we have successful recent examples in the region, showing a starting point promoted by the Pan-American Trauma Society and other actors about the importance of integrating efforts for understanding the current state of the problem in the region.^{8,9}

The actual trend of comparative effectiveness research using data from these registries will open a new era of understanding how heterogeneity of care impacts the outcome of patients in regions where heterogeneity of resources and training is a matter of daily basis.¹⁰

This special issue shows a wide variety of clinical studies, commentaries, and case reports presenting different aspects of neurotrauma-related care. Promotion of further studies including advanced data analysis for the actual existing registries of the region is required, especially in all the academical services that are integrated into the local societies that shape the Pan-American Trauma Society.

Contributions to improve educational activities in neurotrauma within the society and contributions to share local and regional neurotrauma studies in the Pan-American Journal are urgently needed to start moving boundaries in tackling the challenge of neurotrauma care in the Americas.

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