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## EDITORIAL

### Neurotrauma Research in Latin America

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Recently, the global burden of disease study, presented by the world health organization, call the attention of the research community, showing that trauma still remains as a major public health problem in Central and South America.<sup>1</sup>

Within the large spectrum of this problem, one of the more specific injuries associated with disability and death is head trauma. Unfortunately, research groups evaluating integral aspects of the management of this disease and seeking to reduce their impact on society are scarce in this region of the world.<sup>2</sup>

Brazil, Colombia, Argentina and Cuba are among the few countries that have engaged in research in neurotrauma groups. Few studies of basic and clinical sciences have been performed multicenter how our region and much of the evidence used in the comprehensive management of this disease comes from studies conducted in Europe and North America, where care systems differ in important aspects such as resources available for advanced neuromonitoring in intensive care units.

Recently a study performed in Ecuador, Argentina and Bolivia, and published in the New England Journal of Medicine, generated significant controversy internationally for the implications of their results in the treatment protocols of severe head trauma.<sup>3</sup>

After deep analysis of the study results in different meetings with traumatic brain injury experts and after extensive academic discussions published in several biomedical journals, it was considered that this study, with a very good methodological approach, failed trying to focus ecology of medical management in environments with slightly different views of advanced care.<sup>4-8</sup>

These patients were managed under non traditional high income health care settings; due to this, interpretation of advanced monitoring to generate intervention decisions, could be influenced by the idiosyncrasies and pre-existing conditions in different health systems and training resources.

This interesting experience, presented in this trial, should provide an opportunity for research groups in Latin America (where large volumes of neurotrauma patients are generated by our own social conflict in the region), open that gap, where the ecology of patient care in different systems of each region (which may even have variation within the same state), need to be taken into account in further clinical studies, identifying issues related to human factor and their interaction with new or previous existing medical technology, including analysis of the

training process and the variability that these aspects can induced at the results, either in terms of outcome or mortality.

It is time to think about how large consortium studies related to neurotrauma in Latin America are needed, in order to integrate robust databases that reveal the true variability in the comprehensive care of these patients, including aspects of pre-hospital care, emergency care, surgical and intensive care management, without neglecting fundamental aspects like integral rehabilitation.

It is time to develop a large traumatic coma data bank with patients from Central and South America. This initiative should be led by research groups from the region, trying to understand and integrate data analysis in a better fashion, trying to reduce the potential of bias of misunderstanding the dynamic of health systems with limited resources, low capabilities for urgent inter-hospital referral and lack in subspecialty training processes that actually are still in the process of development.

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