

PEDIATRIC NEUROTRAUMATOLOGY: A SCIENTIFIC BODY OF KNOWLEDGE IN PERMANENT CONSTRUCTION

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Image: Brain and Mind: Consciousness and matter.

The hard Path that leads to knowledge, moving thoughts that hold the Key to accessing the Brain's Secrets.

Keywords: Brain injuries, Children, pediatric head trauma, Prognosis, pediatric emergency operations

The Greek philosopher Aristotle famously stated that “all men desire to know”, capturing humanity’s universal aspiration for knowledge—an aspiration that, when fulfilled, gives rise to a sense of pleasure derived from knowing. According to Michel Foucault, this pleasure is intrinsically linked to the pursuit of truth through acquired knowledge [1]. The construction of technical truth—here, specifically, medical-scientific truth through the acquisition of knowledge—is grounded in forms of knowledge that engage the body as part of the learning process, encompassing both theoretical and practical knowledge. In this sense, medical-scientific knowledge must be taught and transmitted so that it does not die with us, thereby ensuring the survival of this body of knowledge while allowing for continued reflection on the constant transformations of the “truths” we construct [2].

Paraphrasing Friedrich Nietzsche, who emphasized that values are neither eternal nor immutable or beyond question [3], I propose that this special issue of Archives of Pediatric Neurosurgery be read as a collection of truths valid within the historical moment in which we live, rather than as an absolute and timeless truth. Will these truths endure? Only time and future readers will tell. This special issue of Archives of Pediatric Neurosurgery will certainly encompass both the known and unknown. It is precisely the unknown—and the discomfort generated by not knowing—that prompts us to inquiry, challenges us to consider multiple hypotheses, and ultimately leads us toward research in the pursuit of knowledge. Science should therefore be understood as dynamic, perpetually under construction and subject to transformation rather than as a static body of knowledge. This dynamism arises precisely from doubt, suspicion, and the recognition of what remains unknown [4].

I emphasize that the most effective approach to traumatic brain injury (TBI) is prevention. In this issue, we find studies that, in different ways, address the consequences arising from failures or inadequacies in

preventive strategies aimed at avoiding primary injury and its consequent secondary effects. This issue, devoted specifically to another step towards building knowledge about TBI in the pediatric population, brings together articles that travel through time, recounting aspects of the past, examining the present, and envisioning future perspectives. We find manuscripts that provide guidance on when head computed tomography (CT) becomes necessary, even in cases of mild TBI, including studies of biomarkers that, when combined with clinical criteria, may assist in the assessment and management of these patients. As we proceed through these contributions, we will encounter manuscripts addressing less common traumatic injuries and providing guidance on their respective management, whether surgical or nonsurgical. We will also find studies focusing on more severe cases, in which intracranial pressure monitoring becomes essential for guiding neurosurgical treatment, including procedures such as craniotomy for drainage of intracranial hematomas and decompressive craniectomy.

I would like to thank all colleagues and researchers who submitted their valuable scientific contributions, helping to partially fill some of the gaps in our knowledge. I am equally grateful for the gaps that will remain open even after reading these manuscripts, as they sustain the ongoing desire for knowledge and remind us that knowledge is always under construction. For Nietzsche, absolute certainties revealed an inability to engage in reflection and openness to multiple perspectives and could even be associated with illusions. I conclude this editorial by wishing readers an enriching experience with the articles in this special issue on TBI in the pediatric population, and by inviting them to engage in reflection, and even disillusionment—in the spirit of Nietzschean thought.

STATEMENTS AND DECLARATIONS

Funding

This study was funded by a research grant (JRTM) from the National Council for Scientific and Technological Development – CNPq (Grant number 350898/2025-1)

Competing interest / Conflict of interest

The author reports no conflict of interest concerning the materials or methods used in this study or the findings specified in this paper.

Acknowledgments

Special thanks to artist Rozendo Loyola de Melo Neto for creating the artwork/image.

Artificial intelligence

The authors affirm that no artificial intelligence tools were used in the writing, editing, or content generation of this manuscript.

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