We thank Dr. Figaji for his thoughtful commentary on our recent systematic review addressing intracranial pressure monitors in traumatic brain injury (TBI). We completely concur with his eloquent summary of the limitations of the literature. Although Dr. Figaji takes slight issue with our contention that in order to improve outcome, intracranial pressure (ICP) monitoring “. . . must be acted upon in a standardized and reproducible manner”, we feel our statement is in fact congruous with his central thesis. This is illustrated nicely in his discussion: elevated ICP is simply a number which may represent various pathophysiologic mechanisms which themselves may have very different treatment approaches.

Intracranial pressure monitoring may be considered analogous to the pulmonary artery catheter (PAC) which generates objective physiologic information which the clinician must then interpret to both diagnose the problem and prescribe a remedy. However, the “right” response is predicated on correct interpretation by clinicians, who perform poorly in this regard. Previous trials on PAC use have been criticized for both lack of training of study personnel on variable interpretation and lack of treatment algorithms in response to PAC data. Because interventions (in this case ICP monitors) generally have small treatment effects, standardization of clinical decisions is requisite for rigorous scientific evaluation. Dr. Figaji illustrates the challenges with developing a standardized algorithm to approach ICP monitoring. However, standardization of care has resulted in improved outcomes in other complex systems, including patients with TBI. Hopefully neuromonitoring will lead to an improved understanding of the pathophysiologic mechanisms underlying our this complex disease process. As always, the goal is to improve care for our patients, something we can all agree on.

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