Postanoxic Vegetative State: Avoiding the Self-Fulfilling Prophecy

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We read with interest the review by Cahill et al about the use of standardized prognostic tests to improve decision making in patients with anoxic encephalopathy following cardiac arrest.¹ Guidelines report a poor prognosis for these patients indicating that only one-third of them regain consciousness while the others remain in a persistent vegetative state (VS) or in a minimally conscious state (MCS). The chances of recovering consciousness progressively decrease as time goes on, with a generally accepted deadline for improving prognosis of about 3 months after cardiac arrest.² Nevertheless, several belated recoveries after this time interval are reported, even when rehabilitative efforts have been discontinued or reduced.³ This possibility prompts reflections about the need for prolonging available treatments even when the chances of recovery are exceedingly small in order to avoid the self-fulfilling prophecy of a missed recovery in a patient who, by definition, is less likely to recover. Indeed, innovative neurophysiological and neuroimaging approaches have recently been proposed to avoid misdiagnoses between VS and MCS and to improve confidence in predicting the outcome.^{3-5,6} As recommended by authors, an approach that relies on multiple prognostic ancillary tests, including physical, neurophysiological, neuroimaging, and biochemical markers, may minimize falsely pessimistic predictions. A multimodal approach adds a further tool that allows us to stratify surviving patients based upon the ratio between preserved and damaged tissue, to detect viable and nonviable neuronal pathways, to identify patients in whom intensive rehabilitative efforts are worth prolonging as much as possible and to select the most appropriate strategies to encourage even unpredictable late recoveries of consciousness. In our opinion, this prognostic approach may also be useful in designing future longitudinal pharmacological trials in patients with postanoxic VS. Until now, the medical evidence for these patients has been scarce and confusing, mainly due to the heterogeneity of patients included in different studies or in the same study. This makes patients not mutually comparable, especially when an objective measure of the consistence of cerebral injury is not available. The systemic characterization of patients on the basis of standardized

prognostic tests may allow to compare patients, to predict outcomes in the acute phase, to orientate management, and to plan future robust studies, based on rigorous clinical research design, in this challenging population. A multimodal prognostic approach would also be useful for patients with disorders of consciousness of different etiologies, including traumatic brain injury and stroke, in order to correlate the severity of the underlying brain damage with clinical outcome.

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