Beyond Emergence:
Understanding Postoperative Cognitive Dysfunction (POCD)

POCD has historically been limited to scientific observation and research whereas the spectrum of mild cognitive impairment (MCI) and dementia in the general (non-surgical) population has evolved into well-defined clinical, functional and prognostic constructs. The cause of POCD is unclear but it has some consistent associations: age, preexisting MCI, fewer years of education.

POCD may be related to an inflammatory process. Susceptible patients are most commonly those with dementia and cerebrovascular disease. Incidence of POCD after non-cardiac surgery: 12 - 21%.

POCD is most often NOT associated with hypotension or hypoxemia. The incidence of POCD is similar for cardiac surgery, total joint surgery and coronary angiography.

It is unclear whether exposure to anesthesia matters.

A multidisciplinary international working group established in 2015 recommends incorporating the nomenclature for cognitive decline as used in other disciplines into the perioperative period. They recommend the term perioperative neurocognitive disorder.

A narrative review in this issue aims to further characterize our understanding and definition of postoperative cognitive dysfunction (POCD). It details, importantly, how POCD has yet to find a place within or without the spectrum of cognitive disorders as defined by other fields of clinical medicine. POCD has significant clinical implications such as decreased quality of life and increased mortality. As such it deserves a more functional definition relative to mild cognitive impairment and dementia. This infographic summarizes a variety of known characteristics of POCD.

The Infographic is composed by Naveen Nathan, MD, Northwestern University Feinberg School of Medicine (n-nathan@northwestern.edu). Illustration by Naveen Nathan, MD.

The author declares no conflicts of interest.

REFERENCE

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