Post-operative cognitive disorders: A new model for perioperative medicine

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In this issue

A. Jacquens et al. (France)

Anesthesia and the risk of dementia in elderly.
J. Steinmetz et al. (Denmark)

Postoperative Delirium.
K.F. Rengel et al. (USA)

Tools to screen and measure cognitive impairment after surgery and anesthesia.
S. Vide et al. (Spain, Portugal, USA)

Impact on the brain of the inflammatory response to surgery.
S. Saxena et al. (Belgium, USA)

It is a great pleasure for us to guest-edit this issue of Quarterly Medical Review dedicated to the Post-Operative Cognitive Disorders (POCD). Last year, we sadly lost Pr Jean Mantz, one of the most prominent European Professor of Anesthesia and Peri-Operative Care. Jean Mantz was directly involved in many translational and clinical studies on this topic. We would like to dedicate this Quarterly Medical Review to his work and his memory.

Perioperative management of cognitive disorders is a major public health problem, explaining a imminent need for a individualized medicine to prevent perioperative cognitive insults. Post-operative delirium and POCD seems to interact as a clinical continuum and it seems relevant to describe them together to really understand post-operative cognitive injuries as a new clinical target. Thus, it seems necessary to understand mechanisms to better adapt and individualize prevention ant therapy. This new peri-operative medical challenge will necessary be efficient with a global cooperation between all the perioperative actors.

As Kimberly F. Rengel, Pratik P. Pandharipande and Christopher G. Hughes show us in their dedicate manuscript, one of the main challenges will be to identify perioperative patients at high risk for developing post-operative delirium [1]. In the second manuscript, Jacob Steinmetz and Lars S Rasmussen present recent studies showing the respective roles of anesthesia and surgery in the development of cognitive complications [2]. Tools to screen and measure cognitive impairment after surgery and anesthesia are discussed by Sergio Vide and Pedro L. Gambus [3]. Finally, more and more studies show a specific role of neuro-inflammation and innate immune response. In this perspective, Sarah Saxena and Mervyn Maze introduce pathophysiological mechanisms [4].

Nowadays, perioperative pulmonary, cardiac and renal injuries seem to be already understood with dedicated prevention and treatment. It is time to optimize perioperative cognitive trajectory. We are grateful for all co-workers of this really nice global review that will offer a nice tool for our medical community.

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References


