

BOOK REVIEW

Neuroanaesthesia: A Problem-Based Learning Approach

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The first neuroanaesthesia textbook in English was published in 1964, authored by Andrew Hunter. Since then, neuroanaesthesiology has dramatically changed and evolved becoming, today, a complex super-specialty whose practice is based on perioperative care for different neurologically injured patients, both those scheduled for elective procedures or those needing urgent interventions for traumatic or non-traumatic critical injuries. Neuroanaesthesiology includes not only the common background of general anaesthesiology and intensive care medicine (i.e. the airway management of cervical spine injured patients, mechanical ventilation, monitoring and manipulation of systemic haemodynamics, pain prevention and treatment etc) but also the characteristic competences and unique challenges regarding cerebral haemodynamic manipulation and multimodal brain function monitoring. These skills are of paramount importance considering that pharmacological effects on the central nervous system, manipulation of the surgical field, and patient pathophysiology are closely interweaved so that changes in one parameter may affect another, depending also on the underlying comorbidity. Furthermore, development of new drugs and innovative sedation protocols allows the performance of neurosurgical interventions in 'awake' patients.

"Neuroanaesthesia: A Problem-Based Learning Approach", whose first edition was published in September 2018, is an innovative textbook which encompasses all the aforementioned aspects of this super-specialty. This textbook is based on a very effective didactic approach which links the learning process with clinical experience: each chapter opens with a clinical case followed by specific key questions structured to encourage critical thinking through an analytic process aimed at promoting problem solving. This textbook consists of eight sections including a wide breadth of important topics relevant to adult and paediatric neuroanaesthesiology, elective and emergency procedures, and intracranial and spinal diseases. The indications for, and correct interpretation of appropriate multimodal neurological monitoring are addressed, based on anatomical, physiological and functional considerations. Among the selected topics is the importance of perioperative care for endovascular thrombectomy in acute ischemic stroke, for whose outcome improvement the appropriately trained neuroanaesthesiologist may play a central role. Finally, at the end of each chapter, what has been learned can be verified and correctly assessed by a multiple-choice questionnaire.

This innovative textbook has the potential to make the complex super-specialty of neuroanaesthesiology easy to learn and safe to practice.

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