

BOOK REPORT

Essential anesthesia. From science to practice

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Euliano TY, Gravenstein JS, Gravenstein N, Gravenstein D: *Essential Anesthesia. From Science to Practice*. 2nd edition. Cambridge: Cambridge University Press, 2011, 199 pp., ISBN 978-0-521-14945-7

Essential Anesthesia is dedicated to students in medicine and colleagues of other specialties who are interested by the world of anesthesiology. The authors have designed a 199-page book that aims to facilitate understanding of anesthesia and its principles by nonspecialists using a brief and concise approach. Very well written and using a simple and clear style, this book offers a concrete and pragmatic approach to applied physiology and pharmacology and perioperative medicine.

Essential Anesthesia includes an introduction followed by three main sections. After a brief summary of the history of anesthesia, the reader is immediately introduced to the main objective of anesthesia: to minimize the risk and improve safety for patients. This objective is clearly the clue to the different chapters presented in the book.

The first section, 'Clinical Management', includes eight chapters that review the major fields of anesthesia, beginning with the preoperative evaluation of patients, continuing with the management of the airway, vascular access and the different techniques for general and regional anesthesia, and ending with postoperative care. This section nicely introduces monitoring of patients during anesthesia, emphasizing that clinical monitoring should remain the most important. In the last chapter, an overview of the different available anesthesia machines is proposed through a step-by-step approach of the concepts on which these machines are based.

The second section, 'Applied Physiology and Pharmacology', is a concise and clear review of applied physiology and pharmacology related to anesthesia. A specific chapter is dedicated to the cardiovascular system and another to the lungs, while a third chapter looks at the other systems – mainly the brain, the stomach, the liver,

the kidneys and the blood. The last chapter of this section deals with pharmacology, reviewing the different drugs typically used in anesthesia, without forgetting to discuss briefly the different theories of anesthesia; that is, the theories possibly explaining the phenomenon of induced coma.

The final section, 'Clinical Cases', features some real-life situations presented as clinical cases. Using the same brief and pragmatic style, the authors illustrate anesthetic care provided before, during and after surgery through 11 different but common surgical procedures.

Fully informative, easy to read, well structured and including learning objectives, these different clinical cases paint a true picture of daily anesthesia practice with its constraints related to the patient, the environment, and the surgical stress. Proposed solutions to problems encountered are based on applied physiology and pharmacological principles developed before.

In conclusion, *Essential Anesthesia* is an excellent introduction to anesthesia for nonspecialists, with a refined style and pragmatic approach that allows easy reading and assimilation. The lack of references at the end of each chapter, which would have enabled the reader deeper understanding, represents the only weakness of this book that is essential to all nonanesthesiologists interested in the field of anesthesia.

Competing interests

The authors declare that they have no competing interests.

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