

# Book & New Media Reviews



## Geriatric Anesthesia

*Frederick Sieber (Ed.)* McGraw-Hill Medical Publishing Division. First edition. 370 pages, 2007. ISBN-13:978-0-07-146308-9

Frederick E. Sieber's recent publication is well written; and its release is well timed as baby boomers approach their sixties. From an appearance standpoint, the cover design and photographs are very attractive. Also, for clarity the author has organized his book into seven distinct sections.

In section one the author gives an overview that provides sufficient information to define the geriatric group. He projects population growth to be nine billion people by the year 2048, one billion of this populace being the elderly. He predicts that this population growth is likely to generate a subspecialty of geriatric anesthesiology.

In section two the author deals with the effect of aging on organ reserve. He includes tables and figures that are easily understood, and key articles at the end of each chapter that provide a quick search and references. The chapter in which the author emphasizes the evaluation, therapy, and complications of myocardial infarction is well written; and the full page algorithm makes it easy for medical students and residents to retain the information. The author illustrates a step-wise approach to the perioperative treatment of patients with a cardiac rhythm management device such as an implantable cardioverter defibrillator and a pacemaker. His information regarding the respiratory changes and interpretation of pulmonary function tests in the elderly, and his risk index for predicting postoperative pneumonia are also well written. The author's preoperative assessment identifying the process of liver/kidney disease is excellent, as is the scoring system to determine the functional reserve of liver and kidney.

In section three the author covers the analysis and pharmacokinetics of anesthetic drugs in the elderly, along with inhalation agents and local anesthetics. He compares, in detail, the effects of fentanyl, alfentanil, sufentanil, and remifentanil; and he criticizes and compares the well known studies of Scott & Stanski that claim that age has no effect on the pharmacokinetics of alfentanil. I believe the author to be correct in

labelling remifentanil the most useful drug for elderly patients, provided its dosage is carefully titrated to effect. The use of local anesthetics in the elderly is well documented, and the author emphasizes that the choice of anesthesia should be based on the nature of the surgery, the co-morbidity, the length of the procedure, the expertise of the surgeon, the anesthesiologist's comfort level with the technique, and, most importantly, the patient's wishes.

Although the author devotes a full chapter of section four to improving the quality of life post-surgically, the major portion is devoted to preoperative assessment. His reference to the presence of hypoalbuminemia as a predictor of poor outcome is an eye opener, and his explanation of the topic of polypharmacy is clearly presented. The author provides geriatric trauma statistics indicating that more than 800,000 hospital admissions in the U.S. are trauma related and the respective mortality rate is 28%. He states that geriatric trauma consumes 25% of the trauma care dollars in the U.S. He also indicates that the odds of a geriatric patient dying after trauma increases by 6.8% for every year beyond age 65, and the incidence of blunt trauma due to falls supersede other injuries in the advanced age population. In this section, the author provides an excellent review of the choice of anesthetic for hip surgery.

In section five the author deals with real issues and controversies concerning body temperature, hemodilution, beta-blockade, and conscious monitoring in the elderly. He stresses that as little as a one or two centigrade degree decrease in body temperature significantly impairs coagulation. The debate concerning perioperative beta-blockade is well written with references to the seminal publications on this topic. The key point the author makes here is that the exact mechanism of perioperative myocardial infarction is not clearly defined, and is, in all probability, multifactorial. Management of patients with high risk should be multi-model, utilizing medications such as beta-blockade, anti-platelet drugs, alpha-2 agonists, or statins. The author cites references that are recent and well documented.

In section six the author deals with postoperative issues including delirium and postoperative cognitive dysfunction. He stresses that the goal of any medical

intervention in the elderly should be a return to the patient's premorbid level of function or greater. Early nutritional support is an important consideration.

Section seven is very interesting. Here the author deals with chronic pain and dementia. He discusses the legal issues, in particular, at what point should the capacity for decision making be assessed and what instruments are available for the assessment. The author also explains how Advance Health Care Directive works and what constitutes resuscitation in the operative room. He maintains that until the legal limits of a physician's obligation to withhold futile care are clearly defined, physician and hospital should continue to work within existing ethical and professional guidelines to balance medical obligations with a patient's right of self determination.

Since minimal access surgery is very common in the elderly, a chapter dealing with this topic would have been appreciated. Also, in this cyber age, a DVD/CD-ROM along with this book would have been a bonus. In conclusion, this book is extremely concise and clearly written, and recommended reading for all anesthesiologists.

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## ERRATUM

In the Letter to the Editor entitled: "Dexamethasone and ondansetron incompatibility in polypropylene syringes" published in the November 2007 issue, *Can J Anesth* 2007; 54: 953-4, there was an error in the spelling of the second author's name and degree: it should read Jason Nickerson BHSc RRT(A). The publisher apologizes for this error.