Epidural Anaesthesia: Images, Problems and Solutions

Titles can be deceiving; in *Epidural Anaesthesia: Images, Problems and Solutions*, the author does not review epidural anesthesia generally, rather the book is focused on epidurography, an imaging technique relatively unknown to many anesthesiologists. Data are derived from a series of 178 cases, collected over 30 years, and comprising mostly obstetric and gynecologic patients. The book includes the most significant findings from the series. The main objectives of the text are to review normal/abnormal epidural anatomy and epidural-related complications using epidurograms. It is well organized with an abundance of images.

The book is divided into 10 chapters and the majority is written in an outline format making it easy to read. The first chapter serves as an introduction and provides a history of epidurography. It also addresses the purpose of performing an epidurogram. Initially, epidurography was used to correlate the physical spread of solution in the epidural space and the extent of observed nerve block. The author goes on to describe various other current utilizations for epidurography in clinical practice. The second chapter describes the technique of epidurography and the “typical” epidurogram is then reviewed. The images are marked with arrows identifying important components of the epidurogram, greatly aiding interpretation of the images. However, following the exposition is sometimes challenging because figures are often located several pages after the relevant text.

Subsequent chapters review complications associated with epidural blocks. For each specific complication, the author provides a case history and accompanying epidurogram. Complications reviewed include intravascular injection, high epidural block, accidental subarachnoid block, multicompartiment block, and Horner syndrome. The author gives particular attention to describing the subdural and intradural space anatomy, clinical presentations, and epidurograms. Next, the author describes causes of failed or inadequate blocks divided into 2 categories: those resulting from dislodgement of the catheter tip and local anesthetic from the epidural space as well as anatomical abnormalities. This latter section includes a discussion of obstructive and other septal anatomical deviations. Again, clinical case histories are used as examples for each situation and then followed by an associated epidurogram. Specific spinal deformities are subsequently addressed including scoliosis, kyphosis and lordosis, spinal pathology/spinal surgery, and spina bifida occulta. The book ends with a nice assessment of the different types of epidural catheters used throughout the 30 years of this epidurogram study and discusses advantages and disadvantages of each.

Overall, the book is an interesting and informative look at epidural blocks and complications using epidurography. The clinical applicability for the majority of anesthesiologists, however, may be somewhat limited as the book is not, nor does it claim to be, a comprehensive review of epidural blockade. Those who will benefit most from this text most likely already have a comprehensive knowledge of epidural anesthesia and analgesia and are looking to further their understanding through the use of the somewhat novel imaging technique of epidurography. For these individuals, this text certainly adds a new dimension of understanding through the visual medium as there are few similar tomes available to practitioners and researchers alike.

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**Society of Cardiovascular Anesthesiologists Thoracic Anesthesia Symposium, April 2012**

The inaugural Thoracic Anesthesia Symposium sponsored by the Society of Cardiovascular Anesthesiologists (SCA) was held April 27–28, 2012 at the Westin Waterfront Hotel in Boston, MA. The SCA developed this one-and-a-half day program to meet the increasing demand for continuing education in anesthesia for noncardiac thoracic surgery because this is an expanding area in both the number and types of procedures.

There have been many recent advances in anesthesia for noncardiac thoracic surgery including, but not limited to, lung isolation techniques in patients with difficult airs, prevention of hypoxemia during 1-lung ventilation and management of minimally invasive and robotic lung surgery. Discussions with attendees at recent anesthesia meetings and a survey of course evaluations have identified these particular areas as professional practice gaps. The symposium program of continuing education was designed to address the knowledge and performance deficiencies in these areas.

Anesthesia for thoracic surgery is not a separate subspecialty, but is usually included within the subspeciality of cardiovascular anesthesia; however, many clinicians who provide anesthesia for thoracic surgery do not provide cardiac anesthesia, and a large proportion of thoracic surgery is performed in hospitals that do not have cardiac surgery services. No adequate forum at national specialty or subspecialty anesthesia meetings is available to facilitate keeping pace with the advances in thoracic anesthesia. This program was designed to be an update and review of thoracic anesthesia for both anesthesiologists who practice...
cardiac anesthesia and those without a cardiac practice, and for anesthesia fellows and residents interested in thoracic anesthesia.

Judging by the attendance and evaluations, the course was a success in meeting these goals. The program was sold out with 144 attendees from various countries and 35 faculty. The high ratio of faculty to registrants was designed to maximize interactivity with the use of panels, case discussions, workshops, problem-based learning discussions (PBLDs), and debates. Panel topics included lung injury in thoracic surgery, esophagectomy, and invasive pulmonology. Topics for case presentations included tracheal resection and hypoxemia during video-assisted thoracoscopic surgery. The “Cancel the Case?” session was an interactive discussion of 3 topics: tracheal dehiscence, bloody tap during thoracic epidural, and the pregnant patient with a mediastinal mass. During the pro/con debates the audience considered 2 propositions: “Always use the biggest double-lumen tube possible” and “Always use a left-Sided DLT for both right and left thoracotomies.” Although there was no consensus on choosing the optimal size of double-lumen tube, there was general agreement that anesthesiologists should become more comfortable using right-sided tubes.

Attendees rotated through 4 workshops: “Lung isolation with a difficult airway,” “How to make a bronchial blocker work better than a DLT,” “How to make a paravertebral block better than a thoracic epidural,” and “Lung ultrasound.” Perhaps the most enthusiasm among the attendees was generated by the small-group PBLDs. All attendees rotated through 4 PBLDs chosen from a list of 12 topics. Included in the PBLD topics were lung transplantation, robotic thoracic surgery, the opioid-tolerant patient, sleeve resection, cardiomyopathy, or pulmonary hypertension in patients undergoing pulmonary resection.

Thirty-nine posters related to thoracic anesthesia were accepted for display at the meeting. Attendees voted online for the “People’s Choice” award for the best poster using cell phones. The award went to “Clinical impact of post operative atrial fibrillation following extra-pleural pneumonectomy” by James Hardy et al. from the Brigham and Women’s Hospital in Boston.

I am indebted to the many faculty from North America and Europe who volunteered their time and services and to the Planning Committee: Javier Campos, Lebron Cooper, Ferenc Puskas, Andy Ochroch and Edmond Cohen. Based on the success of this year’s inaugural program, SCA will sponsor the 2nd Annual Thoracic Anesthesia Symposium next year in Miami, FL, Friday and Saturday April 5 and 6, 2013 prior to the SCA Annual Meeting. The number of places for registrants will increase but will remain limited, and the program will evolve with new topics for panels, PBLDs, workshops, and debates. Anesthesiologists, fellows, and residents interested in Thoracic Anesthesia should watch the SCA website (http://www.scahq.org/education/ContinuingMedicalEducation/meetingsEvents.html) for announcement of the opening of registration for 2013. For 2012, registration sold out during the “early bird” period, so be sure to register early for next year.

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