



Epidural Anaesthesia: Images, Problems and Solutions

Clive Collier. London, UK: Hodder Arnold, Hachette; 2012, ISBN 978-1-444-15604-1

Joanne Guay, MD

Received: 23 April 2012 / Accepted: 30 April 2012 / Published online: 10 May 2012
© Canadian Anesthesiologists' Society 2012

The contents of *Epidural Anaesthesia: Images, Problems and Solutions* are suited to readers who are already familiar with neuraxial blocks and want to increase their knowledge on the subject of failed epidural blocks. Aren't we all among this group? This 137 page book is filled with interesting examples of various clinical problems associated with complicated epidural blocks and catheter misplacements, and it is illustrated with epidurograms selected from the author's personal collection. Altogether, there are 187 epidurograms, mainly *x-rays*, which the author has collected over three decades, with over 80% involving obstetrics.

The first three of the ten chapters in the book are dedicated to epidurography and describe the possible indications and contraindications for the procedure, details of performance techniques, and typical epidurograms. Jean-Anasthase Sicard (1872-1929) and Jacques Forestier (1890-1978)—to whom we are also indebted for “the loss of resistance technique” (1921)—first reported epidurography in 1926. Epidurography is actually used rarely in modern clinical practice. In the absence of contraindications for the procedure, should we use it more often in the event of an unexpected epidural catheter failure (e.g., in pregnancy before delivery, nursing mother, iodine allergy)? Would the clear identification of an anatomical reason for a failed epidural (e.g., epidural septum, $n = 51$, epidural adhesions post-laminectomy, $n = 1$) prevent us from resubmitting the patient to further futile attempts before switching to another mode of analgesia? On the other hand, are these findings too rare to justify the routine use of an epidurogram on every

failed epidural, and should the procedure be reserved for research purposes only? These questions remain open, but given the relatively high failure rate (approximately 2% following initial adjustment) of epidural catheter placements, evidence-based indications for epidurograms would be welcome! An *a priori* epidurogram would not be 100% accurate in predicting the exact segmental distribution of a block.

Chapter four of the book encompasses most of the clinical scenarios of failed epidural blocks, including accidental intravascular injection, high epidural block, inadvertent subarachnoid block, multicompartiment block (with and without leakage of cerebrospinal fluid), Horner's syndrome, and intradural and subdural misplacements. Some scenarios are accompanied by one or more case reports, which are often incomplete, most lacking the clear documentation of a formal epidural test dose. Chapter five deals more specifically with subdural and intradural spaces and provides clear examples of *x-rays* of subdural and intradural contrast dye injections, three-dimensional modellings of the radiographs, and electron microscope images. Chapter six includes examples of failed epidural blocks associated with a misplaced catheter at other sites, for example, transforaminal catheter escape, paravertebral placement, and retrograde flow with extravasation of epidural solutions.

In chapter seven, the author tries to show the existence of an epidural septum, a concept that has been refuted by others, and describes patients with a midline septum, a transverse septum, or a combined midline/transverse septum. In chapter eight, there are examples of failed epidural blocks in patients with various spinal anomalies, such as scoliosis, kyphosis/lordosis, prior spinal surgery, and congenital anomalies, including spina bifida occulta. In chapter nine, the author summarizes his findings on epidurography

J. Guay, MD (✉)
Maisonneuve-Rosemont Hospital, University of Montreal,
Montreal, QC, Canada
e-mail: joanne.guay@umontreal.ca

depending on the type of catheter used, and in chapter ten, the author offers his conclusion regarding his experience with epidurography.

This textbook is accompanied by web resources, including downloadable images and videos. These are available at www.hodderplus.com/epiduralanaesthesia and are provided at no extra cost for purchasers of the book. Unfortunately, the web resources were not yet available at the time of writing this review.

Overall, the book is a case series of failed epidural catheters investigated at one institution over three decades, each case having been documented by epidurography and classified in various categories. The obvious strength of the book is the impressive collection of epidurograms which are certainly interesting to consult or use for teaching purposes.

Conflicts of interest None declared.