

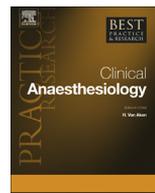


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## Preface

Regional anesthetists have always been on the forefront of innovation and invention. In the last decade there has been an enormous growth in the use of ultrasound-guided peripheral nerve blocks. In addition, enhanced recovery programs (ERP) have been developed to facilitate rapid recovery. Pain is an important postoperative outcome that can be improved by the use of minimally invasive surgical techniques and multimodal pain management combining opioid analgesics, non-opioid analgesics and local regional analgesia techniques. New insights in anatomy and pain have gone hand in hand with the subsequent research and practice of abdominal and thoracic wall blocks.

In this edition, we try to delineate what the future might bring for the ever evolving field of regional anesthesia.

First, by searching for new ways to detect nerve needle contact. Second, by looking back to the basic implementation of ultrasound and witnessing the advancements including compound imaging, needle visualization and all things we now frequently take for granted. And finally, by exploring the possibilities of 3D ultrasound, needle tracking systems and further ultrasound improvements.

We describe the evidence on pressure monitoring and explore the current possibilities.

We further explore extended release anesthetics, even looking at a pufferfish toxin derivative that at the moment looks very promising and might open the way to a whole new future.

The chapter on electrostimulation of peripheral nerves makes me dream. No LAST, no leakages of catheters, no calculating of doses.... The advantages seem endless and the research has just begun.

In the second part we looked at the evolving practice of peripheral nerve blocks. The strive for early ambulation has driven us to look for alternatives for conventionally used methods.

Unfortunately, several other topics including phrenic nerve sparing techniques and abdominal wall blocks could not be considered due to time constraints and other issues.

The success of thoracic wall blocks is unprecedented. However, it is most certainly also time to look at the current variety of these blocks. First, by trying to organize them using a thorough anatomic and correct nomenclature, second by looking at the existing indications and finally describing new applications and possibilities.

Ankle blocks had all but disappeared. I remember that when giving a workshop for ESRA in 2015 that one of the workshop participants complained why I wanted them to teach ankle blocks, because nobody would ever use them anymore. It is fascinating to see that the ankle blocks gain renewed interest mainly due to changing surgical techniques and the increasing interest in fast ambulation.

Another difficult assignment is to look at all the multimodal and regional option, in total knee arthroplasty surgery. The knee innervation itself is already complex. Enhanced recovery programs, types of surgery and orthopedic prostheses and preferences all vary widely. The choice of a particular

regional anesthesia technique should therefore be centre-driven and embrace cooperation and adherence.

The fascia iliaca block chapter exploring anatomy and technique makes the old promise of the “three-in-one” block finally happen. Ending on this, I come to think that the future may be with us already.

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