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### #36911 SEGMENTAL THORACIC SPINAL ANESTHESIA

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#### F20 – Segmental Thoracic Spinal Anesthesia

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Some 15-years ago, we started pioneering work on segmental spinal blocks using the thoracic interspace Th9-Th10. We proved that the combined spinal epidural technique, placing the Tuohy needle in the epidural space and inserting a fine long spinal needle through the Tuohy needle in the subarachnoid space, injecting small doses of local anesthetics, proved to be efficient for minimally invasive abdominal procedures (e. g., gallbladder). Obviously, this requires great caution to avoid damaging the spinal cord as these punctures do occur into the vertebral canal above the level of termination of the spinal cord. Our MRI studies on the thoracic spinal canal anatomy have provided valuable insights, indicating that the spinal cord occupies the anterior part of the spinal canal, leaving extra

room in the posterior/dorsal part of the subarachnoid space for inserting a spinal needle. This knowledge helps in minimizing the risk of puncturing the spinal cord and causing pain or potential neurological damage in awake patients.

It is imperative that such a technique should be reserved for skilled anesthesiologists with extensive experience in regional anesthesia techniques, including epidural punctures in the cervical and thoracic regions, and combined techniques in the lumbar region. They should be aware of the limitations and complications associated with this approach.

The technique appears to be most suitable for abdominal operations lasting a maximum of 1-1.5 hours, with surgeons performing gentle interventions and limiting intraabdominal pressure. The dose of local anesthetic injected in the subarachnoid space plays a crucial role in determining the duration of action and potential hemodynamic effects of the block.

While the thoracic spinal approach can be used in healthy patients, it proves particularly useful for those with limited cardiovascular and respiratory reserves, as long as no general anesthetics are administered. In these cases, general anesthesia may not be the best option, and segmental spinal anesthesia can provide a viable alternative. However, it's crucial to inform patients adequately about the technique, discuss all available options, and obtain informed consent before proceeding.

Although this technique has received positive feedback from colleagues worldwide, it's important to note that segmental spinal anesthesia in the thoracic region has not yet gained widespread popularity or become a universally practiced technique. While there are numerous case reports and a few randomized trials supporting its efficacy, a systematic review of the technique is still lacking.

Segmental thoracic spinal anesthesia represents an important contribution to the field of regional anesthesia and provides valuable insights for further research and exploration of segmental spinal blocks.

### Pro – Con debate

#### #36919 FASCIAL PLANE BLOCKS- CON

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Regional anaesthesia offers many advantages for the perioperative management of pain. From a classification perspective there exists two distinct approaches to peripheral nerve blockade; perineural injection of small volumes of local anaesthetic targeting a specific nerve or plexus and the injection of larger volumes of local anaesthetic into a fascial plane with the intention of using it as a conduit to spread local anaesthetic towards target nerves. The advent of increasingly high-resolution ultrasound imaging over the last 2 decades has made identification of fascial planes, and indeed individual nerves, much easier. This has led to an almost exponential increase in the number of novel fascial plane blocks all with purported advantages over one another. Shortly after the description of a new fascial plane block there is a flurry of attempts to find uses for it and efforts to demonstrate superiority over significantly more established techniques. While efforts to promote