Treatment of radicular pain depends on etiology and symptoms. If non-invasive causal treatment of radiculopathy is possible, it should be used. For example, discitis should be treated with antibiotics. There are three categories of radicular symptoms and signs. Mild radiculopathy is considered a sensory loss and pain without motor deficits, moderate radiculopathy is the sensory loss or pain with mild motor deficits, and severe radiculopathy is considered sensory loss and pain with marked motor deficits. The primary treatment for lumbar radiculopathy will include conservative management such as non-steroidal anti-inflammatory drugs (NSAIDs), activity modification, manual therapy and exercises. Most cases of lumbosacral radiculopathy are self-limited. Counselling is essential for patients with radicular symptoms since most cases are mild and will resolve within six weeks after the onset of symptoms. It is vital to encourage patient to weight loss reduction considering that in most cases elevated body mass index is observed. Spontaneous improvement following a disc herniation or lumbar spinal stenosis is very high. However, minimal invasive treatment if there are no contraindications, should be considered at any level of symptoms. On the one hand, minimally invasive procedures modulate inflammation within the compressed root. On the other hand, they prevent peripheral and central sensitization. The minimally invasive methods of treating radicular pain include steroid epidural blockade, pulsed RF of dorsal root ganglion (DRG), transforaminal epidural ozone (O3) injection. In properly qualified patients intradiscal injection of gelified ethanol (Discogel) is effective. For radiculopathy in patients after multiple surgeries and peri-root scar confirmed in MRI epidural adhesiolysis should be considered. If there is no improvement and muscle strength deficits persist after non-invasive and minimal invasive treatment, neurosurgical intervention should be considered.

Treatment depends on patient condition and needs. Although most radicular symptoms resolve spontaneously, effective treatment should not be delayed.

REFERENCES

SP15 SYMPATHETIC BLOCKS FOR VISCERAL MALIGNANCIES

Michal But.

There are two kinds of neurons involved in the transmission of any signal through the sympathetic nervous system: preganglionic and post-ganglionic. Sympathetic preganglionic neurons are located in the intermediolateral column of the spinal cord from T1 to L2. These neurons then leave the spinal canal as myelinated neurons on the ventral nerve root and travel to the thoracic paravertebral ganglia. These are paired ganglia on the anterolateral surface of the vertebrae. Embryologically, paired ganglia are formed for every vertebral level, but during development sequential ganglia can fuse, particularly in the cervical region. Preganglionic neurons can synapse at the same paravertebral ganglion level that they enter, or they can ascend or descend before synapsing. Postganglionic neurons with their soma in the paravertebral ganglia then track toward their target organs. Some presynaptic neurons pass through the paravertebral ganglia forming splanchnic nerves which synapse in prevertebral ganglia. Postganglionic neurons with their soma in the prevertebral ganglia then track toward their target organs. The ganglia include not just the sympathetic trunks but also: the cervical ganglia (superior, middle and inferior, which send sympathetic nerve fibres to the head and thorax organs), the celiac and mesenteric ganglia (which send sympathetic fibres to the gut), superior hypogastric plexus which send sympathetic nerve fibres to the lower abdomen and pelvis) and ganglion impar formed from two pelvic sympathetic trunk at the end on the front of the coccyx (which innervates sympathetically annus and coccygeal region).

There are many mechanisms of pain in cancer patients and sympathetic nervous system is often involved. The sympathetic nervous system can be blocked at the level of the ganglia or anywhere along a sympathetic pathway. Splanchnalaline plexus (mixed sympathetic-parasympathetic) block and neuroablative techniques for pain caused by tumours of head region. Upper thoracic splanchnic nerve block or ablative techniques for brachial plexopathies (caused for example by upper lung tumours), post mastectomy pain syndrome stellate ganglion block, head pain syndromes. For patients with pain caused by visceral tumours many effective interventions in the sympathetic nervous system is available. Coeliac plexus block or neurolysis for upper abdominal pain caused by pancreatic head tumour, lymphadenopathy, gastric or hepatic tumour. Alternatively in patients with tumours of the epigastrum splanchnic nerves block, neurolysis and ablative techniques may be considered. Lumbar sympathetic block and ablative techniques for lower extremity plexopathies (pelvis tumours), postradiation plexopathy and tumour-related bladder spasms. Superior hypogastric plexus block and neurolytic techniques for pain caused by malignancies in the pelvic viscera. Ganglion impar block, RF ablation and neurolysis for rectal tumour pain.

All described interventions can be effective if the patient is properly qualified. For extremity or facial pain sympathetic nervous system blocks or ablative techniques are more efficient if there are symptoms of a disorder of the vegetative system like skin temperature changes, skin colour changes, oedema or disturbed sweating. In patients with visceral malignancies if the tumour directly presses the structure of the sympathetic nervous system (coeliac plexus compression in pancreatic tumour) causing difficult to treat pharmacologically visceral pain interventions should be considered as soon as possible to avoid central sensitization. Contraindications for interventions on the sympathetic nervous system include platelets
level below 50–100k (depending on procedure), coagulopathies and inflammation at the injection site.

REFERENCES

SP16 HOW TO IMPRESS WITH A PPT PRESENTATION?
5 Casar, GZA Ziekenhuizen, Antwerp, Belgium

The secret to a strong presentation is to have a clear content on one hand and to present it with a powerful attitude on the other hand. To deliver a clear message your slides should be simple and structured. Keep in mind the different personalities in your audience and try to address them all. Cut down on words, pause and make eye contact. Take your time to prepare and own your message instead of trying to prove it.

How to Improve access to RA for all?

This lecture will guide you through the barriers of practical implementation of regional anesthesia in your hospital. To build a regional program you need ‘4T’s’: Teaching, Time, Trust and Team. Regional anesthesia is a subspecialty which requires a thorough theoretical knowledge of anatomy, pharmacology, surgical techniques and evidence on outcome benefits to support your efforts. Training programs need to provide sufficient opportunity to acquire practical skills in basic blocks. Implementing a program requires time and patience to instruct your co-workers and to find the best pathway in your center. Hospital logistics need to support supply of qualitative equipment. It is a team effort to optimize patient care.

SP17 HOW TO MAKE YOUR THORACIC EPIDURAL WORK?
1Steve Coppins*, 2Mark Rausrepp, 1,2Danny Feike Hoogma, 1Rebekka Dreelinck,
1Phillip Van Loon, 1University Hospitals of Leuven, Department of Anesthesiology, Herestraat 49, B-3000, Leuven, Belgium; 2University of Leuven, Biomedical Sciences Group, Department of Cardiovascular Sciences, KU Leuven, B-3000, Leuven, Belgium
10.1136/rapm-2022-ESRA.18

Introduction Although High Thoracic Epidural analgesia (HTEA) has been replaced as a gold standard in minimal invasive surgical procedures, it still is a viable technique in open major surgery (e.g., vascular, thoracic, abdominal). 1 Performing a HTEA is difficult to master. 2 Published failure rates average from moderate to high. 3, 4 Reduced caseloads further diminish training and competence proficiency, augmenting the problem. 5 We will examine common pitfalls and barriers, while determining factors for success. Finally evaluate novelties to improve favorable results and investigate all modalities to aid successful placement.

Discussion Enhanced Recovery programs and minimal invasive surgical techniques have had a detrimental impact on the choice for thoracic epidural as regional analgesic technique. Multimodal analgesic strategies, including fascial plane blocks, are indeed a key element in modern day low impact surgery. 6 However, postoperative pain management for major surgery like esophagectomies, thoracotomies, open abdominal aortic surgery and any major open hepatobilary surgery remain a challenge for anesthesiologists. Even if the effect on morbidity and mortality is controversial, HTEA still has major benefit in reducing opioid consumption combined with a well-known effect on surgical inflammatory cascade. 7

Aiding Success.

First of all, to adapt to diminishing caseloads it is imperative that modern teaching methods are implemented. Simulators, online tools, webinars, video tutorials can have a tremendous impact on training. A basic (lumbar) epidural simulator is a small investment for any anesthetic department to make, with a great return on investment. 8 Video-based learning systems have shown to provide some gains. 9 While online tools like Virtual Spine: lumbar anatomy, 3D model, vertebra, spinal cord, diura, meninges, cauda equina, ultrasound (utoronto.ca) have a profound influence on our anatomical knowledge, unfortunately there is currently not enough evidence on beneficial impact on performance.

Secondly ultrasound (US), although not mandatory to perform thoracic epidurals, can make life easier and also increase enthusiasm of young colleagues for the technique. US has not proven to increase success rates yet, however it facilitates identifying midline and familiarize the unfamiliar with the anatomy. 10

Thirdly the thoracic epidural should be taught properly with respect to all small clinical pearls. Positioning, preparation, adequate communication, effective local anesthesia, organization and adaptation are extremely important and will probably be the best advice to improve your prowess. A locoregional fellowship where a sufficient number of thoracic epidurals are still placed is your best bet when fishing for these pearls. 10

Lastly the loss of resistance technique is a subtle technique indeed. Even with excellent coaching and teaching, this skill cannot be easily transferred to the onlooker. To help ascertain a correct loss of resistance technique there are some tips and tricks up our sleeves. The hanging drop approach can help needle advancement meticulously and carefully, while using both hands. Various spring-loaded syringes have also been developed to aid the developing skills. Results with these devices have been mostly mixed. 11

Ascertaining success.

As described above, assistance of clinical pearls in ascertaining the accurate placement of an epidural needle and catheter play a crucial role. Generally, you can scrutinize three different clinical questions. Was the loss clear? Was the threading of the catheter easy (or even possible) and did patients feel a slight paresthesia while threading the catheter? And finally, is saline column in the epidural catheter dropping steadily when elevated?