

prevention of hypotension consisted of ephedrine and atropine.⁸ This rate of hypotension is acceptable and would probably be less with the preventive use of phenylephrine or noradrenaline recommended in patients with a spinal anaesthesia.²⁸

While respecting these precautions, this practice has demonstrated to be safe.²⁵ In a recent survey among all the Obstetric Anaesthetists' Association in the UK, the respondents considered to use a spinal anaesthesia after a conversion failure (no objective sensory block or below a T10 level or unilateral block), and to decrease the dose of spinal anaesthesia.²⁰ An algorithm published by Vaida et al.²⁹ also considered the level of emergency of the CD to indicate a spinal block: the authors only recommended a spinal anaesthesia for category-2 CD, when parturients presented an epidural analgesia failure.

Finally, false identification of intradural space due to the presence of local anaesthetic in the epidural space is one of the cause of failed rescue spinal block.³ For this reason, new spinal anaesthesia should be performed by an experienced anaesthesiologist, to decrease the risk of failure in emergency situations.

Conclusions Even though a new spinal anaesthesia should not be the first-line anaesthetic technique for intrapartum caesarean delivery in a patient with well-functioning labour epidural analgesia, it is a safe and efficient rescue technique to avoid general anaesthesia in case of failing labour epidural analgesia for emergent caesarean delivery.

Its indications must always be discussed with the obstetricians because onset time to establish a surgical block is longer than for general anaesthesia. Although decision to delivery time is acceptable in many cases with spinal anaesthesia, the situation does not always allow to wait before foetal extraction.

So, YES, For Emergency caesarean delivery, a Labour Epidural Analgesia catheter should be removed, and a Spinal Anaesthesia used instead, but only for failed epidural conversion and not in all the situations.

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SP14 SURGERY, NERVE ROOT BLOCK OR NO INTERVENTION FOR RADICULAR PAIN?

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The most common origin of lumbar radiculopathy is nerve root compression. It commonly results from either disc herniation, spondylosis, and spinal canal stenosis. A disc herniation can be either due to an acute injury or secondary to chronic degeneration of the spine. Spondylosis results in a narrowing of the spinal canal, neural foramen, or the lateral recess. The most common cause of canal narrowing is degenerative arthritis of the lumbar spine. More rarely, the cause of lumbar radiculopathy is a compression fracture, tumour pressure, which may be located in the spinal canal or in the paraspinal region.⁵ Other etiologies include inflammation, infection, trauma and vascular disease.²

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.¹ There are three categories of radicular symptoms and signs.² 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.⁴ 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.⁶⁻⁸ 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 (Dis-cogel) is effective. For radiculopathy in patients after multiple surgeries and peri-root scar confirmed in MRI epidural adhesiolysis should be considered.³ 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.⁴

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There are two kinds of neurons involved in the transmission of any signal through the sympathetic nervous system: pre-ganglionic 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.¹ 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 trunks at the end on the front of the coccyx (which innervates sympathetically anus and coccygeal region).

There are many mechanisms of pain in cancer patients and sympathetic nervous system is often involved.² The sympathetic nervous system can be blocked at the level of the ganglia or anywhere along a sympathetic pathway. Sphenopalatine plexus (mixed sympathetic-parasympathetic) block and neuroablative techniques- for pain caused by tumours of head region.⁵ 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.⁴ 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,³ lymphadenopathy, gastric or hepatic tumour. Alternatively in patients with tumours of the epigastrium splanchnic nerves block, neurolysis and ablative techniques may be considered. Lumbar sympathetic block and ablative techniques- for lower extremity plexopathies (pelvis tumours), postradiation plexopathy⁶ and tumour-related bladder spasms.⁷ Superior hypogastric plexus block and neurolytic techniques- for pain caused by malignancies in the pelvic viscera.¹ Ganglion impar block, RF ablation and neurolysis- for rectal tumour pain.¹

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

SP15

SYMPATHETIC BLOCKS FOR VISCERAL MALIGNANCIES

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