

Erector spinae plane block for relief of chronic intercostal neuralgia after chest tube placement

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The erector spinae plane (ESP) block is a regional technique that can be used to provide analgesia for a variety of acute and chronic pain indications. This block is relatively new as the first reported successful use of this procedure was in 2016 to manage thoracic neuropathic pain in a patient with metastatic disease with rib fractures [1]. The usage of this block has expanded dramatically in acute pain management for a variety of surgeries including thoracotomies, ventral hernia repairs, and even lumbar fusions [2, 3]. The block is relatively easy to perform and continues to have an expanding role in the perioperative and acute postoperative setting. Interestingly, this block has been infrequently used in the setting of chronic pain but has been slowly increasing in popularity. There have been reports of both single shot use as well as long-term catheter placements for chronic pain as well as palliative pain control [4, 5]. We describe an interesting case with the use of this block at our pain clinic for the treatment of chronic intercostal neuralgia after a history of chest tube placement.

The patient was a 45-year-old male with a past medical history of viral pericarditis with recurrent pericardial and pleural effusions requiring bilateral chest tube placements and drainage. His recovery was complicated by chronic intercostal neuralgia and chest wall pain that was not relieved with conservative therapy. The patient had bilateral chest wall pain with right sided pain more axillary and left sided pain more posterolateral. The pain

was sharp and burning in nature, averaging 7/10 in intensity on a numerical rating scale. He reported severe pain with sneezing and deep breathing, and that his pain was especially problematic at night and interfered with his sleep. The patient tried a variety of medications for pain control including acetaminophen, nonsteroidal anti-inflammatory drugs (NSAIDs), lidocaine patches, neuropathic medications, as well as tizanidine. He was also using opioids at night to help him sleep. Given that the patient failed a variety of medications for his pain control we opted to try an ESP block for his pain.

We initially performed the block on the right side under ultrasound guidance at the T8 level using an 8 cm, 22 G, sonovisible needle. We used 8 mL of 1% lidocaine with 2 mL of 4 mg mL⁻¹ dexamethasone for a total of 10 mL volume of injectate for this block. The block was performed using an in-plane technique and allowed for good visualization of local anaesthetic lifting the erector spinae muscle off of the tip of the transverse process. The procedure was performed without complications and the patient received significant relief and requested the procedure be performed on his left side shortly afterwards. The patient has reported ongoing pain relief for roughly 10 months on both sides. Additionally, he is off all pain medications and only requires intermittent use of NSAIDs for his pain management after this block.

The ESP block is a relatively easy block to perform under ultrasound guidance and has great versatility. It

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is very useful in the acute pain setting as it can be used for post-operative analgesia. The block is also gaining popularity in the chronic pain setting and is a good option for patients with chronic chest wall pain and intercostal neuralgia. Our case further demonstrates the ease and utility of this block for long term pain control in a patient with chronic intercostal neuralgia after chest tube placement.

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