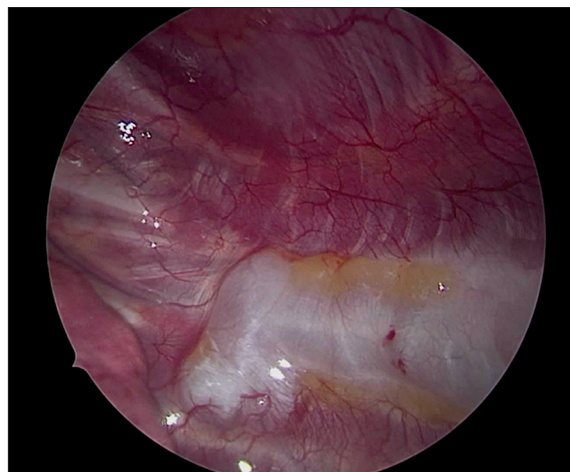


## Video-assisted subpleural block: A description of a novel technique

There is a common belief among thoracic anesthesiologists that post-thoracoscopy procedures produce less pain intensity versus thoracotomy, which is partially true. Although thoracoscopic surgery reduces postoperative pain compared with open thoracotomy, patients can also experience moderate to severe pain, especially during the first few hours after thoracoscopic surgery.<sup>[1]</sup> However, effective management of acute pain following either thoracotomy or thoracoscopy is needed to prevent postoperative complications and reduce the likelihood of developing chronic pain. Earlier on in our center we have conducted a randomized controlled trial on pain relief following thoracoscopic sympathectomy for palmar hyperhidrosis and we concluded that instillation of local anesthetic in the pleural space provided optimal analgesic conditions postoperatively.<sup>[2]</sup> Extrapleural block and thoracic paravertebral block are another analgesic techniques, which are as effective as a thoracic epidural block in thoracotomy patients.<sup>[3]</sup> These regional techniques result in unilateral and multiple blockade of intercostal nerves with a minimal risk of spinal injury. Radiologic studies have shown that the site of action of local anesthetics delivered through an extrapleural intercostal catheter is primarily through the paravertebral space.<sup>[4]</sup> Extrapleural intercostal catheter insertion was primarily performed by the surgeon for thoracotomy at the end of surgery and before the surgical wound was closed. The parietal pleura was removed bluntly from the posterior chest wall toward the vertebral body through three intercostal spaces above the thoracotomy incision. An 18-gauge epidural catheter was advanced into the space at the level of the neck of the ribs and laid on the endothoracic fascia under direct viewing. The catheter was secured with 4-0 prolene sutures to maintain its position during lung expansion and it extruded through the chest wall.<sup>[5]</sup> Subpleural block which is a synonym of extrapleural-paravertebral block was performed in thoracotomy patients and proved to be effective in pain relief.<sup>[6]</sup> In this report, we are describing a novel approach which is video-assisted subpleural block for relief of post-thoracoscopic pain. The procedure is carried under thoracoscopic guidance with described technique.<sup>[7]</sup> The Surgineedle (SN) Auto Suture™ (Covidien llc, Mansfield, MA, USA) is introduced percutaneously at the level of fourth intercostal space at the lateral axillary line. The SN is introduced until it reached the pleura. The subpleural



**Figure 1: Subpleural local anesthetic distribution**

space was injected with 10 mL of normal saline, followed by 50 mL of 0.125 mg marcaine [Figure 1]. We have done few cases using the same technique with excellent postoperative pain relief results. We believe the technique is effective in alleviating post-thoracoscopic pain. More cases need to be done to confirm our results.

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