Awake Thoracotomy Under Single Shot Paravertebral Blocks For a Patient With a High Risk Cardiac Neoplasm

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Background:
We present a 26-year-old patient with a right atrial and ventricular mass who successfully underwent awake open thoracotomy for a right lung nodule biopsy using thoracic paravertebral blocks as the sole anesthetic.

Methods:
Clinical data were collected through direct observation in the operating room and supplemented by the anesthesia record and electronic medical record (EMR). As this was a single-patient case report containing de-identified information, it was exempt from IRB review under MedStar Health Research Institute (MHRI) policy.

Results:
Three ultrasound-guided single shot paravertebral blocks were performed at T4-T6 with 6mL of .5% ropivacaine at each level. Local infiltration with 30mL of 1% lidocaine with epinephrine. A Posterior thoracotomy was performed with the patient fully awake and without sedation. The patient tolerated the incision well, but experienced intermittent discomfort during visceral pleural manipulation, which was managed with operative pauses and continuous communication.

Discussion:
Thoracic paravertebral blocks may serve as the primary anesthetic for carefully selected high-risk patients undergoing open thoracic procedures when general anesthesia carries substantial hemodynamic risk. Although regional anesthesia for thoracic surgery has been described primarily for less invasive procedures, this case illustrates its successful application to a more invasive open thoracotomy.

References

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Thoracic paravertebral blocks provided surgical anesthesia for awake open thoracotomy without sedation or conversion to general anesthesia.

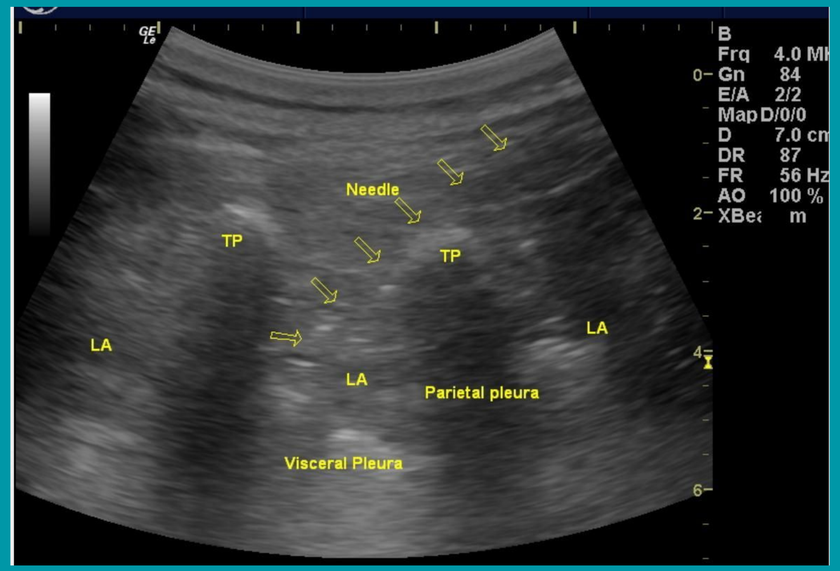


Figure 2. Ultrasound-guided thoracic paravertebral block demonstrating transverse in-plane needle insertion and local anesthetic spread within the paravertebral space. Reproduced from Conroy M. *How I Do It: Ultrasound-Guided Thoracic Paravertebral Blockade.* **ASRA News.** 2012;12(3):14–16.

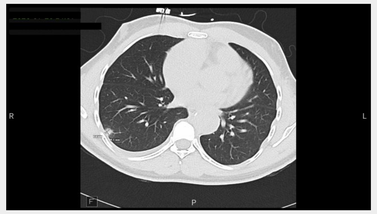


Figure 1. CT Chest with Right Lobe Nodule
Irregular right sided cardiac mass extending into the right atria, ventricle, and interventricular septum (52x34x40 mm). Further diagnostic workup revealed LVEF of 38%, RVEF of 43% and right ventricular outflow obstruction.



Figure 2. 3 cm Right Thoracotomy Incision Closure

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