

Ultrasound-guided Cervical Vagus Nerve Block for Cough Suppression in a Non-intubated Video-Assisted Thoracoscopic Surgery: A Case Report

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Introduction

- This case report illustrates the use of ultrasound-guided cervical vagus nerve block and its role in suppressing cough intraoperatively

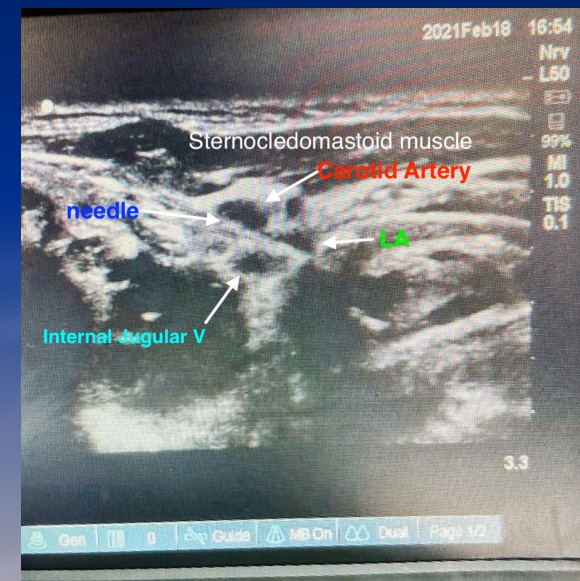
Case Summary

- 41 M, admitted with non healing wound on his right elbow with sternal pain accompanied with shortness of breath.
- Chest CT scan requested revealing bilateral pleural effusion, empyema thoracis left, bilateral interstitial pneumonia with consolidation left lower lobe, and bilateral non-calcified pulmonary nodules.
- He was scheduled for non-intubated video-assisted thoracoscopic surgery with deloculation bilateral, pleural biopsy left, chest tube thoracostomy, bilateral

Methods

- The patient was placed in a lateral decubitus position and pre-scanning was done to identify the landmarks for the planned blocks. Serratus Anterior plane block bilateral, Thoracic Paravertebral block (T5 + T7) bilateral and Cervical Vagus nerve block left was done
- Bupivacaine 0.25% 15 ml each, 0.5% 7ml per level, 0.25% 2ml were given respectively
- In ultrasound guided Cervical Vagus block, the patient's head was positioned facing the contralateral side and liner probe placed on the sternocleidomastoid in transverse position to visualize the internal jugular vein and carotid artery. A 50mm stimulating needle was inserted from lateral to medial targeting the space between the carotid artery and internal jugular vein and local anesthetic was administered

The use of **Ultrasound-guided Cervical Vagus nerve block** was successfully done in suppressing cough reflex in lung manipulation during Non-intubated Video-Assisted Thoracoscopic Surgery



Results

- Patient did not develop hoarseness immediately after vagus nerve block
- Ultrasound-guided unilateral Cervical Vagus nerve block was done to suppress cough on left side of the lung where more manipulation was done
- Manipulation of the right side of the lung was also done but coughing was observed, additional analgesic was given
- The procedure lasted for 2 hours and was uneventful
- The patient was transferred to PACU with tolerable postoperative pain

Discussion

- The use of ultrasound-guided cervical vagus nerve block in this case helped in suppressing cough during lung manipulation in a non-intubated thoracoscopic surgery
- It is a safe and feasible block together with Serratus Anterior plane block, Thoracic Paravertebral block T5+T7 to provide anesthesia and analgesia
- However, bilateral cervical vagus block should be done in caution due to detrimental side effects

Take a picture to view the entire paper.

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