

ULTRASOUND GUIDED ERECTOR SPINAE BLOCK IN RADICAL MASTECTOMY. A CASE REPORT

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Introduction

The recent introduction of the pectoral nerves block (PECS) and serratus plane block (SPB) in breast surgery, represents an alternative to general anesthesia (GA) and locoregional conventional techniques like epidural anesthesia or thoracic paravertebral block (PVB) in oncological breast surgery, especially in high risk patients.

Objectives

We present a description of a relative new yet simple interfascial plane block, the erector spinae plane (ESP) block, as first description by Forero for thoracic neuropathic pain like an alternative to GA and PECS 2, serratus plane block and paravertebral block for radical mastectomy in high risk patients. We also discuss the relevant anatomy and the rationale of the ESP.

Methods

In our hospital Presidio Sanitario Cottolengo Torino the ESP block was performed in a 85 years old woman underwent to radical mastectomy.

She was 158 cm tall, weighed 80 kg (BMI 24) and affected by arterial hypertension, pregress CAD and heart failure with LVFE 38%.

The patient needed of antiplatelet therapy.

Written informed consent was obtained from the patient. Regional anesthesia was performed under ultrasound guidance.

The patient was placed in a sitting position and a high frequency linear ultrasound transducer (SONOSITE SII with 5 – 10 Mhz linear probe) was placed in a longitudinal orientation 3 cm lateral to the T5 spinous process.

Three muscles were indentified superficial to the hyperechoic transverse process shadow as follows: trapezius, rhomboid major and erector spinae (ES). An 80 mm 22 g block needle (SONOTAP PAJUNK) were inserted in a cephalad to caudal direction until the tip lay the interfascial plane deep to erector spinae muscle.

The in plane approach were used and after the interfascial plane under the ES was identified 5-6 ml of saline solution were injected to open the fascia and then a solution of ropivacaina 0,5% 200mg were injected.

A sedation with fentanyl 100 gamma, midazolam 1 mg and propofol 1% 30 mg was ensured. Supplemental oxygen 40% inspired fraction is administred and heart rate, ECG, arterial blood pressure and SpO2 were monitoring during the surgery.



Results

A good quality anesthesia of the mammary region was obtained, with emodynamic stability ,without discomfort for the patient and surgeon so at the end of surgical procedure the patient was admitted in a Recovery Room unit according to our policy. An extended postoperative analgesia were obtained in the first 24 hours after surgery, the patients did not request opiates and only 3000 mg of acetaminophen were administered. The patient did not suffer postoperative side effects like pain, nausea, and vomiting.

Conclusion

This case report shows that, although the epidural and thoracic PVB block represent the gold standard in breast surgery the ES block as PECS block and SPB could have a role and be a valid alternative to conventional techniques especially in high risk patients undergoing breast cancer surgery.

Further studies should be needed to demonstrate the validity of ES block as an anesthetic standardized method for breast cancer surgery.

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