

Erector spinae plane block (ESP) for postoperative analgesia for mastectomy total radical: case report

Universidad Industrial de Santander



Dra Viviana P. Rueda Rojas, Elba Orozco, Rafael Serrano.
Universidad Industrial de Santander, Anestesiología, Bucaramanga, Colombia.



Background and Aims

Postoperative pain control in breast cancer surgery has become one of the most important goals for anesthetists. Ultrasound-guided erector spinae plane (ESP) block is an innovative, easy, safe.

Methods

To describe 50-year-old female patient, a weight of 62 kg, with an 8-year history of a mass in the right breast which has undergone rapid progressive growth, involving the entire breast, over the past 7 months, diagnosed as a phyllodes tumor. Simple right mastectomy with axillary lymph node dissection and pectoralis major fascia resection were performed under general anesthesia. Ultrasound-guided erector spinae plane block was performed for postoperative analgesia, with excellent response up to 18 hours following the procedure.

Results

The patient was placed on left lateral decubitus and, following asepsis and anti-sepsis, T6 to T7 and right paravertebral ultrasound was performed using a high-frequency linear probe, to identify the anatomy (Figure 2) Bupivacaine with 0.25% epinephrine and 0.5% lidocaine was administered (total volume 20mL), achieving satisfactory erector spinae hydrodissection. Assessment 4 hours later found an area of anesthesia comprised by the right anterior hemithorax and axillary region and anesthesia from T4 to T12 in the posterior region (Figure 3) Pain assessment was performed over a 30-hour period using the analog visual scale. Based on our findings, ESP block may be recommended as an option or adjunct for pain management.



Figura No 1: mama prequirurgica .



Figure 2: Ultrasound image of ESP block. ESP=erector spinae plane: Identifies from the outside to the inside: 1.Skin, 2.subcutaneous cellular tissue, 3.Trapezius muscle, 4. rhomboid major muscle, 5.Erector Spinae muscle, 6.transverse process. A 50-mm echosensitive needle was placed through an in-plane cephalocaudal approach up to the erector spinae muscle.



Figure 3: Diffusion of local anesthetic. Assessment 4 hour later the ESP.

Conclusions

ESP block is a safe, innovative strategy that is easy to perform and ensures good postoperative analgesia in radical mastectomy, reducing opioid requirements. It offers good pain management, contributing to faster patient recovery.

Case	Sensory block areas	Pain intensity assessment VAS					Use of morphine PCA
		Hours					
		4	12	18	24	30	
1	T6-T12	0	0	1	1	2	1mg in 30 hours

Bibliography

- Forero M, Rajarathinam M, Adhikary S, Chin K J. Continuous erector spinae plane block for rescue analgesia in thoracotomy after epidural failure: a case report. AA Case Rep 2017; 8(10): 254-6.
- Forero M, Adhikary SD, López H, Tsui C, Chin KJ. The erector Spinae plano block: a novel analgesic technique in thoracic neuropathic pain. Reg Anesth Pain Med 2016;41(5): 621 – 7
- Krediet, AC., Moayeri N, van Geffen GJ, Bruhn J, Renes S, Bigeleisen PE, Groen GJ. Different Approaches to ultrasound-guided thoracic paravertebral Block: an illustrated review. Anesthesiology 2015; 123(2): 459-474.