

# Bilateral Erector Spinae Plane Block for Breast Augmentation Surgery: In Transgender Patients

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## ABSTRACT

A unique regional anesthetic technique called erector spinae plane block (ESPB) is utilized to treat thoracoabdominal chronic neuropathic pain and postoperative pain. In our short communication, we have discussed the effectiveness of the ESPB for breast augmentation with silicone gel implantation surgery, particularly in transgender community patients.

**Keywords:** Breast augmentation surgery, Erector spinae plane block, Transgender.

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The ESPB, an interfascial plane block, was first introduced by Forero et al., in 2016 as a successful method for treating thoracic neuropathic pain.<sup>1</sup> ESPB was mostly administered for perioperative or postoperative analgesia in studies that were later published, nevertheless.<sup>2</sup> The same location where ESPB was first disclosed also reported the first bilateral ESPB, which was used for postoperative analgesia in laparoscopic ventral hernia surgery. Initial clinical results revealed that ESPB injections would travel to the spinal neurons' dorsal and ventral rami, blocking both somatic and visceral pain in a way similar to epidural analgesia. Thus, a regional anesthetic technique called ultrasound (USG)-guided ESPB is used to deliver thoracic analgesia. In the beginning, Forero et al., presented two distinct methods for local anesthetic application.<sup>3</sup>

Bilateral breast implantation surgery using silicone gel, where opioids are frequently administered for the moderate to severe postoperative pain, is frequently associated with surgical procedures. So, in these cases, one can try to use the USG-guided bilateral erector spinae plane block, which can be useful to provide postoperative analgesia and can result in opioid free analgesia.

Here we are discussing a case of bilateral breast augmentation surgery with silicone gel implantation for a transgender patient in which USG-guided bilateral ESPB (Figs 1 and 2) was given using 0.5% ropivacaine 10 mL and clonidine 50µg given on each side at the level of T4 and T5. Postoperative pain scores and patient satisfaction scores were observed, which showed a better extent of analgesia, the degree of the blocking (including the axilla), and the potential for avoiding IV opioids after surgery. So, it is recommended to do bilateral ESPB with safe local anesthetic with opioids for breast implantation. Further

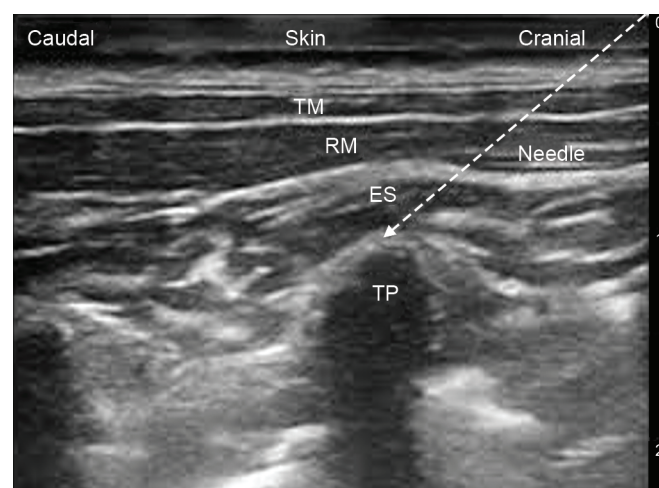
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**Fig. 1:** Sonography image showing erector spinae plane and needle pathway



**Fig. 2:** Image showing procedure of performing ESPB in sitting position

studies in a large group of the population can be done for better results.

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