Minerva Anestesiologica
EDIZIONI MINERVA MEDICA

Erector Spinae Plane Block for the management of chronic cancer pain in the era of Covid-19

Pierfrancesco FUSCO, Chiara MAGGIANI, donatella VOLPE, Gian M. PETRONI
Claude T. BAGAPHOU, Franco MARINANGELI

Minerva Anestesiologica 2021 Apr 14
DOI: 10.23736/S0375-9393.21.15516-6

Article type: Letter to the Editor (Correspondence)

Article first published online: April 14, 2021
Manuscript accepted: March 15, 2021
Manuscript revised: March 5, 2021
Manuscript received: December 30, 2020

Erector Spinae Plane Block for the management of chronic cancer pain in the era of Covid-19

Pierfrancesco FUSCO [1], Chiara MAGGIANI [2] *, Donatella VOLPE [2], Gian M. PETRONI [2], Claude T. BAGAPHOU [3], Franco MARINANGELI[2]

[1]Department of Anesthesia and Intensive Care, San Salvatore Academic Hospital, L'Aquila, Italy; [2]Department of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy; [3] Unit of Anesthesia, Intensive Care and Pain Medicine, Hospital of Città di Castello ASL UMBRIA 1, Città di Castello, Perugia, Italy.

*Corresponding author: Chiara Maggiani, Department of Life, Health and Environmental Sciences, University of L'Aquila; Via Vetoio, 67100, L'Aquila, Italy. E-mail: maggiani.kiara@gmail.com

Oncologic pain is a common chronic condition that is notoriously difficult to manage; patients often show poor response to analgesic medications, or experience intolerable adverse effects.[1] Furthermore, during the Covid-19 pandemic, oncologic patients affected by SARS-COV-2 infection reported an increase in pain, often due to the infection itself or to the discontinuation of pain therapies[2]. In this setting, locoregional anesthesia (ALR) could be a useful tool to manage chronic pain, improving pain relief, eliminating side effects related to the conventional therapies and finally reducing the need of close follow up.

We report a case of a 75-year-old man affected by parotid carcinoma with multiple costal and vertebral metastasis, in particular at D7- D9 level, which obliterates the bilateral recesses. The patient reported moderate neuropatic pain (6 on Numerical Rating Score-NRS) radiating from his spine to the middle axillary line, in a dermatomal area between T7 and T12, and poor adherence to treatment (Tapentadol 100 mg three times par day and fentanyl 100 mcg as needed), because of modest response and onset of side effects. In March 2020, he was admitted to the sub-intensive care unit of our Hospital with bilateral Covid-19 pneumonia and respiratory failure. During this period, the pain worsened and the patient discontinued his therapy. He came to our attention in October 2020, as pain intensity had increased from 6 to 8 on NRS. Because of the severity of symptoms, we

considered to perform either a Paravertebral Block or an Erector Spinae Plane Block (ESP block): the paravertebral injection was ruled out as being too invasive for the clinical setting[3,4,5]. The ESP block was performed as follow: the patient was placed in a prone position and a high-frequency linear ultrasound transducer (12 MHz) was placed in a longitudinal orientation at level of T9 transverse process (Fig 1-B). A 22 gauge 50 mm block needle was used, and the tip of the needle was directed towards the transverse process, in the fascial plain deep to the erector spinae muscle, then 20 ml of 0,2 % ropivacaine and dexamethasone 8 mg were injected (Fig. 1-A). Within a few minutes the patient reported a significant improvement in symptoms and, after a few hours, a complete resolution of the pain. At the 7-days follow-up visit, he reported recurrence of the pain, but lower in intensity (4 on NRS). The same treatment was carried our two more times and the pain became progressively mitigated. The insertion of a cathether in the interfascial plane and other possible techniques were considered as a therapeutical option for pain control, but we decided to delay them due to the difficulties related to Covid-19 pandemic in our hospital, as well as in other Italian hospitals.

In conclusion, ESP block is a simple, safe and effective technique that could be considered as a therapeutical option for the management of chronic oncologic pain, especially during the Covid-19 pandemic.

REFERENCES

1. Forero M, Adhikary SD, Lopez H, Tsui C, Chin KJ. The erector spine plane block. A novel analgesic Technique in Thoracic Neuropatic Pain. Reg Anesth Pain Med. 2016; 41:5:1-7.
2. Puntillo F, Giglio M, Brienza N, Viswanath O, Urtis I, Kaje AD et al. Impact of COVID-19 pandemic on chronic pain management: Looking for the best way to deliver care. Best Pract Res Clin Anaethesiol 2020 Sep; 34(3):529-537

3. Fusco P, Di Carlo S, Scimia P, Luciani A, Petrucci E, Marinangeli F. Could the new ultrasound-guided erector spinae plane block be a valid alternative to paravertebral block in chronic chest pain syndromes? Minerva Anestesiol. 2017 Oct;83(10):1112-1113
4. Huang W, Wang W, Xie W, Chen Z, Liu Y. Erector spinae plane block for postoperative analgesia in breast and thoracic surgery: A systematic review and meta-analysis. J Clin Anesth.2020 Nov;66:109900
5. Hasoon J, Urtis I, Viswanath O, Musa A. Utilization of Erector Spinae Plane Block in the Chronic Pain Clinic for Two Patients With Post-Thoracotomy Pain. Cureus 2020 Jul 3; 12(7):e8988

Conflicts of interest.—The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

Authors' contributions.— All authors read and approved the final version of the manuscript.

Keywords. — Chronic pain; Covid-19; Erector Spinae Plane Block; SARS-COV-2

Fig. 1-A. Ultrasound image. TM: Trapezious Muscle; RMM: Rhomboid Muscles; ESM: Erector Spinae Muscle; TP: Transverse Process.

Fig. 1-B. In-plane placement of a 50 mm block needle at level of the transverse process under ultrasound guidance.