Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Correspondence

Peripheral nerve blocks in a patient with suspected COVID-19 infection

Dear Editor,

Coronavirus disease 2019 (COVID-19) has become a pandemic, infecting more than 1 million people so far. Several surgical procedures have recently been performed and proposed for both diagnosed and asymptomatic or undiagnosed infected patients. Regional anesthesia (RA) is recommended as the first choice modality in order to avoid the aerosol-forming interventions during the anesthetic management of the patients with COVID-19 infection [1,2]. On the other hand, COVID-19 infection has been reported to be associated with thrombocytopenia [3,4]. In addition, it has also been reported that significant intraoperative hypotension (systolic BP < 80% of the baseline) is witnessed in 86% of parturients undergoing continuous epidural anesthesia (EA) due to COVID-19 infection [1]. For this reason, caution should be exercised while performing the central neuraxial anesthesia. Here, we would like to share our experience in the case suspected for COVID-19 infection, where we carried out peripheral nerve blocks (PNB).

A 72-year-old male patient with hypertension and other symptoms (i.e. fever, sore throat) associated with Covid-19 infection, was planned for a lower limb amputation (without using tourniquet) due to the irreversible ischemic damage. *Written informed consent was obtained from the case due to the procedure and publication of data.*

It was decided that the best anesthetic approach would be the combined femoral nerve block (FNB) and popliteal sciatic nerve block (SNB). The patient wore an oxygen mask (connected an end-tidal CO2 sampling line with a HME filter) under the surgical mask during the operation, and the oxygen supplement was given at minimal flow. The ultrasonography (USG) device, also including the probes and cables, was kept with transparent plastic covers to prevent contamination. The procedure was decided to be performed by the most experienced anesthesiologist. To protect the staff, an appropriate personal protective equipment (PPE), such as FFP3 masks, goggles, full-face shield, apron and double gloves were used before the procedure. Since the operator anesthesiologist declared the visual quality to be impaired due to the evaporation during the preparation phase, the blocks were performed after applying goggles with anti-fog agent and removing face shield.

FNB in the supine position and SNB in the slightly lateral position were carried out from the medial to the lateral with an in-plane approach using a linear transducer [5]. We used local anesthetic mixtures of 15 mL (10 mL of 0.5% bupivacaine and 5 mL of 1% lidocaine) for the femoral nerve and of 20 mL (10 mL of 0.5% bupivacaine and 10 mL of 1% lidocaine) for the sciatic nerve. The total duration spent for both blocks was 6 min. After the accuracy of both blocks was meticulously tested for success, the operation was launched 20 min after the procedure, and no complications developed during the surgery and postoperative period.

In this case, we utilized PNB, an anesthesia technique that forms no aerosol and will not be affected by thrombocytopenia or hypotension due to "COVID-19" infection. On the other hand, due to its relatively long performance and onset time, PNB may be disadvantageous, compared with other anesthesia techniques.

In addition, performing deep or multiple blocks may become more difficult when using PPE, and the team will have long-term contact with the patient having COVID-19 infection. Prior to launching the procedure, practising PPE and the methods used to improve visual quality such as anti-fog agents, detergents or iodophor may improve the success and reliability of PNB. Also, the experienced practitoners may decrease the nerve damage using the combination of USG, nerve stimulation and injection pressure monitoring. In conclusion, we consider that PNB is the first anesthetic choice to perform appropriate surgeries in those with COVID-19 infection.

Declaration of competing interest

We declare that the contents have not been published elsewhere and the paper is not being submitted elsewhere. Also the manuscript has been read and approved by all co-authors. Also, the authors declared no conflict of interest and no sources of support.

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