**Título:** The role of continuous spinal anesthesia on COVID-19 pandemic - Case Report

**Autores:** Ana Marques, Melanie Barata, Marta Dias, Catarina Tiago, Vânia Costa

**Instituiçõe :** Centro Hospitalar Vila Nova de Gaia/Espinho

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**Resumo:**

Continuous Spinal Anesthesia (CSA) can be an option for high-risk comorbid patients undergoing major abdominal surgery and may be advantageous compared to general anesthesia in selected patients. (1) CSA allows a better postoperative analgesia, reduced use of opioids, less effect on respiratory physiology, less incidence of postoperative nausea and vomiting and a faster return to oral intake. (1,2) It ensures a faster recovery, that is particularly important in COVID-19 pandemic to reduce the length of hospital stay and the admissions in postoperative intensive care units.

With the following case, we would like to highlight the use of CSA as a good option for major abdominal surgery and emphasize the importance of proper training for a safe use of CSA.

Clinical Case

We report a fifty-year-old man, ASA III, proposed to an urgent segmental enterotomy due to an acute bowel obstruction. Patient’s personal history included an acute exacerbation of chronic obstructive pulmonary disease (COPD) caused by pneumonia, diagnosed two days before (Figure 1). For this reason and lack of available intensive care unit beds due to COVID-19 pandemic, we decided to perform a CSA in L1-L2 space. A bolus of hyperbaric bupivacaine 5mg and sufentanil 2mcg was administered and the next bolus were titrated to patient complaints. Sedation was achieved with midazolam and nausea and vomit prophylaxis was made with ondansetron. The procedure lasted 2h15min and the patient remained hemodynamically stable with no complaints of pain, nausea or vomiting. The catheter was removed at the end of the procedure and the patient was accompanied to the hospital ward. No complications were reported.

Discussion

COVID-19 has burdened health care systems reducing the critical care units available for non-COVID-19 patients. This limitation and also the risk of contamination, induced an adaptation of anesthesia guidelines advised to consider regional anesthesia whenever possible. (3)

Despite the advantages, CSA has also disadvantages such as late mobilization and hemodynamic instability that can be reduced with smaller doses of local anesthetic bolus. It can also be associated with complications like spinal cord lesion, respiratory distress if a high block is achieved and post dural puncture headache. (2)

Weighing pros and cons, this technique allows to perform surgical interventions in patients who would otherwise be classified as non-eligible to surgery due to contraindications to general anesthesia or who would be postponed due to lack of available beds in postoperative intensive care units. Since it avoids airway approach, it also allows healthcare protection during COVID-19 pandemic.

This anesthetic technique could be an excellent choice for urgent abdominal procedures during this pandemic.

1- Minerva Anestesiol. 2020; 86(3):261-269;

2- BJA Education. 2019: 321e328;

3. Anaesth Crit Care Pain Med. 2020;39(3):395-415.



