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## Neuroaxial anesthesia for COVID-19 parturient

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### Statement of the problem:

COVID-19 pandemic presents unique challenges for anesthesiologists, especially those, which are caring for patients during labor and delivery. It is well established, that in case of COVID-19, for the reasons of safety of patients and healthcare personnel, elective surgical and anesthesia procedures must be postponed but it is not possible for parturient. Therefore, the anesthesiologist must solve specific problems relating to pregnancy, childbirth and COVID-19. In the TSMU first university clinic, 42 parturients were COVID-19 positive according to PCR- test and they were treated using institutive COVID-19 protocol. Due to radiation safety, chest X-ray or CT study was not performed for these patients. Prior to neuroaxial interventions coagulation study had been anticipated. For providing of the neuroaxial procedures nasal canula oxygenation under surgical mask had been used for each parturient and health-care personnel equipped with PPE and N-95 mask. For labor analgesia epidural anesthesia was the preferred method. Initially, 0.2% ropivacaine 10.0 was injected with consequent infusion of maintenance dose - 0.1% naropine 5-7 ml/h and bolus doses of 0.2% ropivacaine added as needed. In case of cesarean section, 10 ml of 0.75% ropivacaine was injected through the epidural catheter with subsequent continuous infusion of 4-5 ml/h 0.5% ropivacaine. For patients without initial epidural catheter placement or epidural catheter malfunction, spinal

anesthesia was used for cesarean section with subarachnoid injection of 9-12 mg. bupivacaine and 4 mg dexamethasone. Hypotension was treated with phenylephrine bolus injections. In cases of resistant hypoxemia, general anesthesia was used for cesarean delivery. Neuroaxial anesthesia provided without significant complications and was safe for physiologic childbirths and cesarean sections for COVID-19 parturient.

### Conclusion:

Neuroaxial anesthesia is safe for childbirth analgesia and cesarean for COVID-19 parturient. No other special methods are needed for this reason, except the measures which are defined according to institutive protocol for the prevention of infection spread.

### Biography

Vakhtang Shoshiashvili is an anesthesiologist in Tbilisi State Medical University (TSMU) First University Clinic. He is also assistant professor of TSMU, faculty of medicine, department of anesthesiology and intensive care, associate professor, faculty of medicine, European University, associate professor, faculty of medicine, Kutaisi University.

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