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Anesthetic Challenges and Ethical Dilemmas in a Parturient During the Coronavirus Pandemic

Case Report

Lady Christine Ong Sio[1*], Alexander Bautista[2], Stephanie Weede[3], Daisy Sangroula[3]

[1] Resident, Department of Anesthesiology and Perioperative Medicine, University of Louisville, 530 S Jackson St., Room C2A01, Louisville, KY 40202, USA.
[2] Associate Professor, Department of Anesthesiology and Perioperative Medicine, University of Louisville, 530 S Jackson St., Room C2A01, Louisville, KY 40202, USA.
[3] Assistant Professor, Department of Anesthesiology and Perioperative Medicine, University of Louisville, 530 S Jackson St., Room C2A01, Louisville, KY 40202, USA.

Abstract

The COVID-19 pandemic represents an extraordinary time that calls for extraordinary measures especially in the treatment of patients. This current situation poses substantial clinical as well as ethical challenges to health, patients, and healthcare providers. This narrative aims to provide three clinical scenarios in the realm of obstetric anesthesia, the anesthetic challenges that come with it, and the ethical dilemmas that one may face while caring for women admitted in labor and delivery during this pandemic.

Keywords: COVID-19; Parturient; Obstetric Anesthesia; Ethics.

Introduction

Issues with regards to COVID-19 such as having adequate personal protective equipment (PPE), accurate testing and monitoring, vaccine availability, and social restrictions are subjected to constant debate requiring clarity and consistency. The evidence on prenatal, intrapartum, and postpartum risk and transmission is limited to date provided for by the Centers for Disease Control and Prevention (CDC) and professional organizations such as The American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine (SMFM) [1, 2]. This narrative aims to discuss anesthetic challenges and ethical dilemmas in pregnant women during this pandemic.

Case # 1: Patient in labor who declined COVID-19 testing

26-year-old G3P2002, term pregnancy in labor who desires trial of labor after cesarean section. She denies fever and shortness of breath nor any contacts with known COVID positive patients. She refused COVID testing because she "did not want to have something shoved into her nose and did not want to live in fear."

Anesthetic Challenge

Despite in-depth discussion with the patient, she vehemently refused to have COVID testing. While still in the latent phase of labor, the anesthesia team discussed with her the value of placing an epidural catheter due to multiple reasons:

1) The lack of testing meant that she would be treated as if she were positive, therefore, implementation of droplet and contact precautions are required;
2) The Society for Obstetric Anesthesia and Perinatology (SOAP) recommends early epidural placement in COVID positive pregnant women to reduce the need for general anesthesia should an emergency cesarean delivery be needed; [3]
3) Pregnant women, in general, are considered high risk for difficult intubation. Intubation protocol for COVID positive patients discourages the use of bag-mask ventilation, making intubation more challenging.

***Corresponding Author**:
Lady Christine Ong Sio, MD,
Department of Anesthesiology and Perioperative Medicine, University of Louisville, 530 S Jackson St., Room C2A01, Louisville, KY 40202, USA.
E-mail: lady.ongsio@louisville.edu

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Ethical dilemma

As health care providers, it is in our nature to try and push ourselves to the limits of endurance to provide the best care possible for our patient. However, COVID-19 may present a very personal dilemma that is juxtaposed to the provider's physical and mental health needs, considerations onlooking after the needs of their families [4]. If the patient does not want to get tested, that is her right to autonomy. CDC does not have a protocol for universal testing in patients who were being admitted for labor and delivery [2]. Thus, one should also make sure their respective institutions have a policy in place regarding COVID-19 testing and implementation.

Case #2: Elective Cesarean Delivery

26-year-old G3P1011, term pregnancy, presented to the labor and delivery unit for an elective repeat cesarean section. During her admission, COVID testing was negative.

Anesthetic Challenge

Our institutional policy regarding all elective cases include COVID testing within 72 hours prior to scheduled surgery. Since this is considered an elective case, her testing was done on admission. The patient received spinal anesthesia and the rest of her delivery was uneventful.

Ethical Dilemma

COVID testing on elective cases is the new norm in these trying times. CDC recommends that if a person is COVID positive, they should wait until they turn test negative and quarantine for 14 days before they can get an elective surgery. A COVID positive pregnant patient close to term, however, cannot wait 2 weeks to convert to test negative. It is therefore advisable that all the providers participating in her care should take all precautions as they would for any COVID positive patients per institutional standard and proceed with cesarean section.

Case #3: Emergency Cesarean Section

25-year-old G2P1001, term pregnancy in labor, was admitted for trial of labor after cesarean. She denied any fever or shortness of breath. COVID-19 testing done on admission was pending. During the course of monitoring, the fetal heart rate patterns were non-reassuring and the decision was made to do a cesarean section. General endotracheal anesthesia using rapid sequence intubation was done due to the emergent surgery, observing appropriate contact, droplet, and airborne precautions. Her COVID-19 testing eventually came back negative.

Anesthetic Challenge

For care of patients receiving general endotracheal anesthesia with uncertain COVID status, protective medical equipment should be worn, including N95 masks, eye goggles, protective suits and rubber gloves. Powered air-purifying respirator (PAPR) is reserved for use for patients confirmed COVID positive. At this point when the results are pending, one must treat as if the patient is positive. Medical personnel should follow a strict protocol with regards to entering and exiting the operative room [5].

Discussion

There has been a tremendous strain on health care resources brought on by the COVID pandemic. The unexpected and unprecedented challenges during these trying times have impacted patients and health care workers [6]. The immunologic and physiologic changes in pregnancy can theoretically put this population at increased risk to viral respiratory infections, including COVID-19, however, despite the limited evidence, pregnant women don't appear to be at increased risk for severe disease [1].

The development of innovative protocols among institutions to provide alternate care delivery during pregnancy, labor and postpartum are necessary. A quality care team should be notified if a pregnant patient with suspected or confirmed COVID-19 is admitted and birth is anticipated [7].

In order to best care for patients who refused testing, one must consider 1) patient's autonomy and informed consent and 2) principle of nonmaleficence and beneficence. The principle of autonomy assumes that one is free from control of others and has the capacity to make life choices free from any influence [8]. The primacy in modern medical ethics of the principle of respect for autonomy has led to the widespread assumption that it is unethical to change someone's beliefs, because doing so would constitute coercion or paternalism [9]. It is part of the physician's responsibility to give patients information to remove biased interpretation of information, in this case, bias against testing. Persuasion is a part of clinical practice but it must be used with great sensitivity; if evidence is not provided or transparency is not maintained, ethical persuasion can easily cross the line into paternalistic manipulation [10].

The concept of universal testing approach in elective surgery cases can be extended to obstetric patients in that, by knowing one's COVID status, it helps to determine hospital isolation practices, streamline bed and operating room assignments, anticipate advanced neonatal care, and guide the use of PPE. Sutton and colleagues presented 215 pregnant women who delivered during the period of March 22 to April 4, 2020 who were all screened for COVID symptoms. Only four (1.9%) had symptoms and were COVID positive. However, 29 patients who tested positive were asymptomatic [11]. Knowing the potential risks of asymptomatic COVID positive patients, though may seem controversial, can be beneficial.

The American Academy of Pediatrics(AAP) addresses the issue on the care of infants born to mothers with suspected or confirmed COVID. Temporary separation should be done to minimize the risk of postnatal infant infection from maternal respiratory secretions. If the mother chooses rooming-in despite recommendations, the infant should be at least 6 feet from the mother using a curtain or isolette. Because studies to date have not detected the virus in breast milk, mothers may express milk after breast and hand hygiene and a non-infected caregiver may feed the milk to the infant. Direct breastfeeding should involve strict preventive precautions such as the use of a mask and meticulous hygiene practices. Testing of newborns, if available, is recommended after

24 hours of life, repeated at 48 hours of age [12].

The COVID pandemic has increased stress levels for pregnant patients, their families, and health care providers. COVID positive patients are denied a support person at the time of delivery. Their babies are considered persons under investigation (PUI) and isolated from the mother. In our experience, mothers refuse testing to ensure they won't be denied a support person during delivery and the newborn is not separated from them. However, if the mother turned out to be an asymptomatic positive then the newborn is at higher risk of COVID infection. Information regarding the rational use of PPE for health care providers should be available to allay their fears and ensure safety.

Conclusion

During this difficult situation, it is imperative to mitigate stress, empower women to make informed decisions, and provide necessary precautions for health care professionals that is evidence-based. Standard operating procedures should be in place to remove ambiguity, facilitate individual decisions, and lessen discrimination.

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