

BACKGROUND

- The COVID-19 pandemic has prompted health care professionals in all specialties to examine how they deliver care to COVID-positive patients, and obstetric anesthesia is no exception.
- The physiological changes of pregnancy have rendered our parturients at an elevated risk for severe complications and, thus, require special considerations for peripartum care.

CASE

- 28 YO G3P1102 at 36w1d with history of T2DM, asthma, obesity.
- Previous SVD x1, C/S x1 for LGA fetus, and PreE in both previous pregnancies.
- Presented to OSH after 11 days of cough, sore throat, and positive COVID-19 PCR test (patient was unvaccinated).
- Transferred to KUMC after 3 days for higher level of OB care.
- Required 4-8L by NRB on arrival.
- Due to increasing oxygen requirements, OB team recommended RLTCs.
- L3-4 CSE was placed in the OR with 1.6ml of 0.75% bupivacaine, with no neuraxial narcotics given.
- C/S was uncomplicated.
- Bilateral TAP block was administered for postoperative analgesia.
- The night of delivery, patient rapid responded for increasing O2 requirements and was transferred to COVID unit.
- The next day, the patient's blood gas was 7.36/40/57/23 on 15L by NRB. She was admitted to the ICU and intubated on arrival.
- Despite mechanical ventilation, patient continued to have refractory hypoxia. CTS was consulted for ECMO.
- Patient was treated with dexamethasone, antibiotic/DVT prophylaxis, and diuresis.
- She was decannulated on POD 9 and extubated on POD 12.
- Patient left AMA on POD 14.

CASE

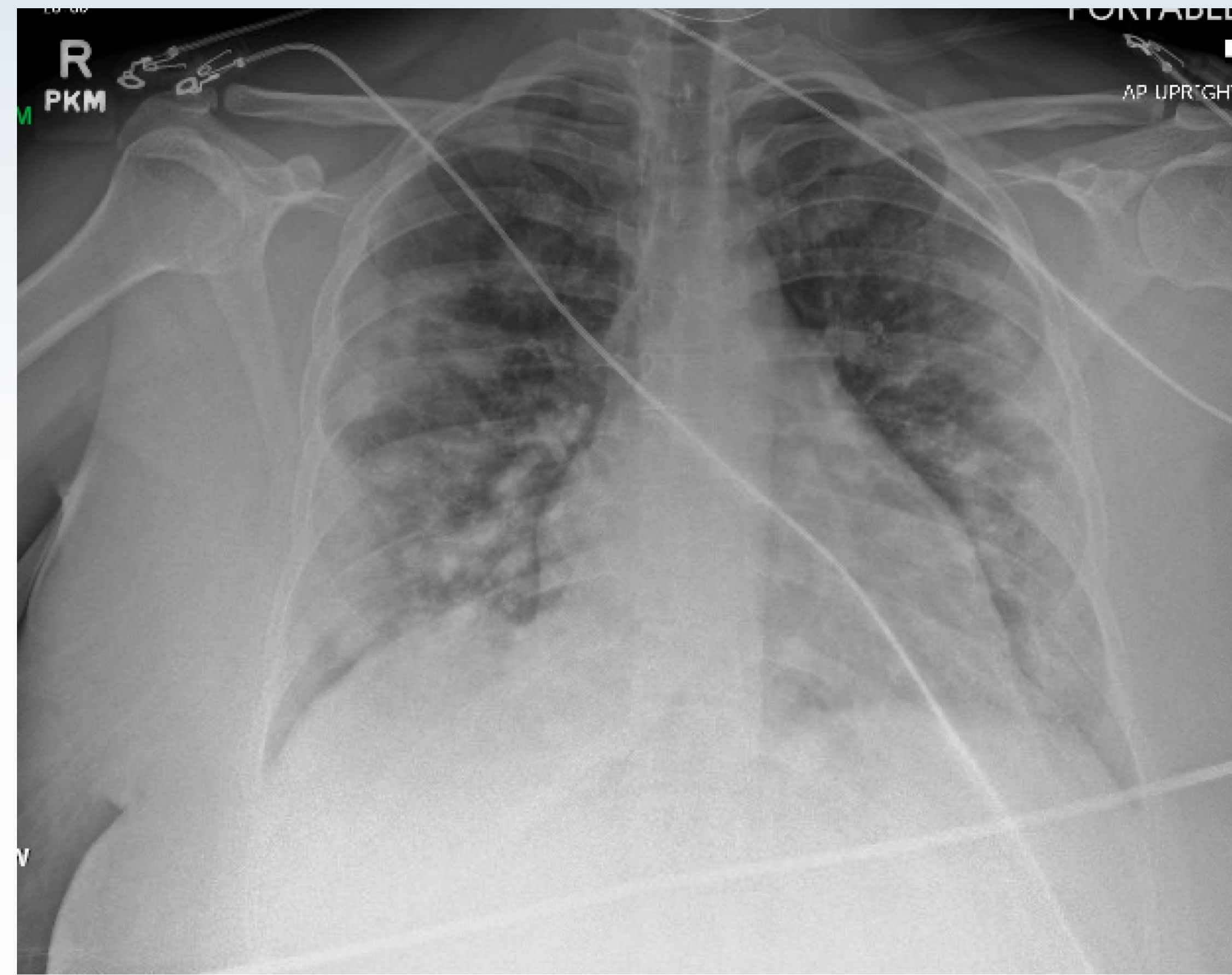


Figure 1: POD 0, multifocal pneumonia



Figure 2: POD 1, worsening multifocal pneumonia.

DISCUSSION

- Physiological changes of pregnancy such as altered respiratory mechanics, increased O2 consumption, hypercoagulability, and altered cellular and innate immunity render these patients more susceptible to severe COVID-19 infections (requiring ICU care, intubation, and ECMO).
- Comorbidities in these patients make them even more susceptible (obesity, HTN, diabetes, PreE, and advanced maternal age).
- Neuraxial anesthesia is preferable to GETA in terms of risk to patient and healthcare team. However, GETA is a safe alternative in emergencies.
- There is more to be studied when it comes to ECMO for severe COVID ARDS; however, several large observational studies have shown that ECMO is an effective and safe salvage therapy for ante/postpartum patients with ARDS refractory to intubation with mechanical ventilation.
- Delivery has been shown to slow the PaO2/FiO2 ratio in parturients with COVID-19-related ARDS; however, the effect size was small and hospital length of stay was not affected. Delivery should not be considered therapeutic or curative in the setting of COVID ARDS.
- Steroid use should be used judiciously and on an individualized patient basis due to potential harm to mother and fetus.

REFERENCES

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