Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Iqbal SN, Overcash R, Mokhtari N, et al. An uncomplicated delivery in a patient with Covid-19 in the United States. N Engl J Med. DOI: 10.1056/NEJMc2007605

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Supplementary Appendix

Information on Infant Testing and Patient Follow-up:

Given the patient's temperature spike before delivery, neonatal work up was done and included physical exam, CBC, and COVID 19 testing of the baby. There was no leukocytosis and the baby was asymptomatic therefore no additional treatment was warranted per the neonatal intensive care team.

The first COVID-19 test for the infant was done at 24 hours of age with a negative result. The second test at 48 hours of age is currently pending.

The neonate was allowed home with parents after clearance given by the infectious disease service who noted symptomatic improvement of the mother and no subsequent fevers. The husband was moved to a hotel nearby to complete his quarantine period.

Follow-up by the pediatric team has confirmed that baby is doing well and remains asymptomatic. On follow up of the patient, she has a mild dry cough without fever or shortness of breath. The father of the infant is recovering well.

Methods:

COVID-19 Specimen Collection and Processing:

Clinical specimens for COVID-19 were obtained with flock mini swabs of the nasopharynx and oropharynx and placed in 3 mL BD Universal viral transport media. The test was processed

through the Lyra® SARS-CoV-2 Assay by Quidel which is a real-time polymerase chain reaction (RT-PCR) assay intended for the in vitro qualitative detection of human coronavirus SARS-CoV-2 from viral RNA extracted from swab specimens.[1] The authorized testing consists of nucleic acid extraction on the Roche Diagnostics® MagnaPure 96 platform, followed by RT-PCR on the Applied Biosystems® 7500 Fast RT-PCR instrument. Additional maternal and neonatal swabs were taken. Maternal sites included amniotic fluid, vaginal side walls, and rectum obtained prior to delivery. Newborn swabs were taken from the nasopharynx, oropharynx, oral mucosa, skin surface and rectum right after delivery.

Preparation for Delivery and PPE:

The patient's labor course was in a regular room on the obstetrics floor, close to the labor and delivery operating room and neonatal intensive care unit. The patient met with the neonatal intensive care physicians for consultation prior to delivery to review hospital protocol for mother and baby separation in setting of COVID-19. Any healthcare personnel that entered her room for labor checks were following CDC guidelines for proper PPE, including eye protection, gown, gloves, and surgical mask.[2,3] The patient had an uncomplicated vaginal delivery which was attended by two physicians from the Maternal Fetal Medicine and General OBGYN teams and two labor and delivery nurses. For delivery, PPE of all medical personnel included gown, gloves, bouffant disposable surgical cap, knee high shoe covers, eye protection, and N95 mask as there was concern for aerosolization during the second stage of labor. The patient wore a facemask at all times, including during the second stage of labor when she was pushing.

Results:

Laboratory Testing:

COVID-19 testing resulted approximately 21 hours after collection, and after results for rapid antigen testing for influenza A and B and respiratory viral panel resulted. The testing for COVID-19 was done at an affiliated hospital in the same region. The respiratory viral panel included adenovirus, *Bordetella pertussis*, *Chlamydophila pneumoniae*, four coronavirus variants (229E, HKU1, NL63, OC43), metapneumovirus, rhinovirus, influenza A and B, *mycoplasma pneumoniae*, parainfluenza, and respiratory syncytial virus. Sputum cultures showed no growth except for normal respiratory flora, and urine antigen for legionella and Streptococcus pneumoniae were negative. Urine analysis only showed minimal ketones. Two sets of blood cultures revealed no growth. Due to high demand in the laboratory for COVID-19 testing, maternal and newborn swabs have been collected and frozen but not yet processed.

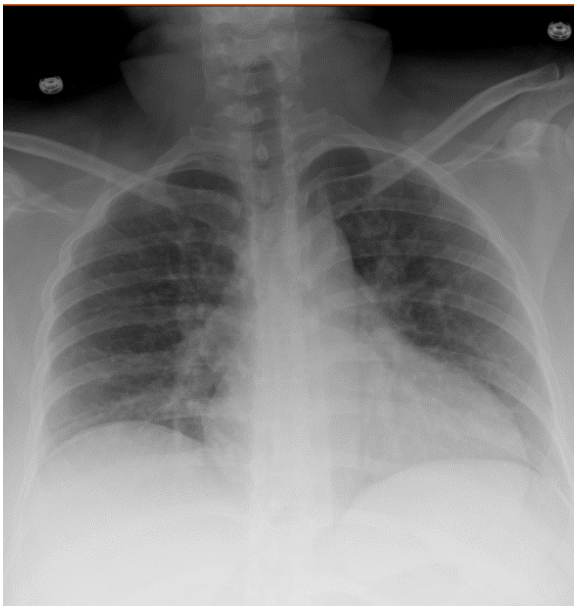

Figure: Chest radiograph showing mild reticulation of the interstitium (Hospital Day 1, Day 4 of Onset of Symptoms).

References:

1. Detection of 2019 Novel Coronavirus (2019-nCoV) by real time RT.PCR. Corman et al., 2020

2. Centers for Disease Control and Prevention. Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings, March 2020https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html#Patient_Placement

3. Centers for Disease Control and Prevention. Evaluating and Testing Persons for Coronavirus Disease 2019 (COVID-19) March 2020https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html