

Febrile Infant: COVID-19 in Addition to the Usual Suspects

To the Editors:

SARS-CoV-2, the RNA coronavirus etiologic agent of pneumonias that appeared in December 2019 was sequenced and confirmed in January 2020 by the Chinese Center for Disease Control and Prevention.¹ The World Health Organization on March 11 officially designated COVID-19 a pandemic as it spread rapidly to 196 countries with over 54,000 confirmed cases in the United States alone.²

While reports about the virus have focused on the adult population, the largest study on children to date has been reported from China by Dong et al. Their clinical severity analysis, which included both COVID-19-positive patients and those with a high index of suspicion, revealed that severe (ie, respiratory distress) and critical (ie, ARDS or shock) occurred in 5.9% of children compared to 18.5% in adults, with infants below age one comprising the highest proportion.³

We report a previously healthy, fully vaccinated, late preterm, 58-day-old male who presented with fever. On the day of admission, he was sleeping longer than normal, had watery eye discharge with periorbital erythema and a rectal temperature of 101.2F. Stools were softer and greener for the past 2 days. There was no respiratory distress, cough, decreased intake, decreased frequency of wet diapers, sick contacts, or travel.

Physical exam revealed T 100.8F (rectal), HR 176 beats per minute, slight

fussiness, glassy eyes with mild surrounding erythema, soft anterior fontanelle, normal tympanic membranes bilaterally, and mild nasal congestion. The rest of his exam was normal. Laboratory assessment showed complete blood count: white blood cells (WBC) 5.44 k/ μ L (normal: 4.0–19.5 k/ μ L) with 43% neutrophils (ANC 2497/ μ L; normal: 1000–12,500/ μ L), 34% lymphocytes (ALC 1.86 k/ μ L, normal: 4.0–13.5), 10% monocytes, 10% eosinophils, 2.5% reactive lymphocytes. Platelets 278 K/ μ L (normal: 150–350 K/ μ L) and a mildly anemic hemoglobin at 9.2 g/dL (normal: 9.4–11.2 g/dL). Comprehensive metabolic panel was normal except for a mildly elevated alkaline phosphatase and calcium. Urinalysis: 6 RBC, 23 white blood cells, no bacteria or leukocyte esterase. Blood culture and urine culture were negative. Chest X-ray was normal. Rapid flu, respiratory syncytial virus and respiratory viral panel were negative, and a COVID-19 test was performed. The patient was treated with one dose of intramuscular ceftriaxone and acetaminophen for fever.

Eighteen hours after admission, the patient was afebrile, without further need for antipyretics, with diminished periorbital erythema and HR 140–149 beats per minute. He was discharged home with instructions to keep him and his family quarantined, pending his COVID-19 test results, which came back positive 24 hours later. The patient and his family remained well after discharge.

This case demonstrates that presentation of COVID-19 is non-specific and easily attributed to many etiologies. Previous reports indicate that children with COVID-19 have variable presentations including asymptomatic, nausea, vomiting, diarrhea,

congestion, fever, dry cough, pneumonia, fatigue, lymphopenia, and/or neutropenia.⁴

Despite being in the highest risk subgroup of children, the patient in this report recovered within 24 hours of admission.

We conclude that during this new pandemic, providers must consider COVID-19 in infants presenting with fever and minimal other findings or historical risk factors.

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