

Atypical presentation of COVID-19 in young infants

As of April 27, 2020, more than two million people worldwide have been diagnosed with coronavirus disease 2019 (COVID-19), with Europe being one of the current major clusters of the pandemic.¹ Despite an absence of evidence, children have been targeted as a potential source of children-to-adult virus dissemination, and schools have been closed in most countries. However, findings seem to indicate a lower susceptibility of children to COVID-19 and low contagiousness.² Within 7 days of imposed population quarantine in France (initiated on March 17, 2020), we observed an increase in number of young infants with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.

In our paediatric hospital, patients presenting with fever or respiratory symptoms, or both, and requiring admission to hospital are admitted to a dedicated SARS-CoV-2 infection unit. During the first week of quarantine, 14 infants younger than 3 months were admitted to this unit, and five of these young infants were diagnosed with COVID-19 on the basis of nasopharyngeal swabs positive for SARS-CoV-2. Their clinical presentations differed from those reported in articles about children with COVID-19,^{3,4} which present little data from younger infants.

The five infants with COVID-19 were boys. They had been healthy, but were admitted with poorly tolerated and isolated fever (appendix). None of the boys received non-steroidal anti-inflammatory drugs before admission, they had no respiratory symptoms before or during hospitalisation (in contrast with published data⁵), and they did not need intensive care (chest x-rays are provided in the appendix).

Four of the boys showed neurological symptoms at admission, such

as axial hypotonia or drowsiness and moaning sounds, or both (appendix), which prompted us to do lumbar punctures. Cerebrospinal fluid samples were normal and tested negative for SARS-CoV-2 by RT-PCR. The infants received no drugs other than acetaminophen. Their clinical course was rapidly favourable, which allowed hospital discharge 1–3 days after admission. A dedicated paediatrician supervised the follow-up, which consisted of a daily phone call using a standardised questionnaire for 2 weeks.

Here we describe our experience of COVID-19 in five young infants. In the pandemic context, infants younger than 3 months with isolated fever should be tested for SARS-CoV-2. Although infants might initially present signs of severe infection, our experience is that the youngest children tolerate and rapidly improve from COVID-19, in contrast to adults admitted to hospital with COVID-19. However, because little is known about SARS-CoV-2 infection in infants,^{4,6} close monitoring is required for at least 2 weeks after the diagnosis. All of the infants' parents showed mild signs of viral infection (ie, rhinitis, or cough or fever, or both, for <1 week), which could be related to undiagnosed COVID-19.

We declare no competing interests.

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See Online for appendix

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