



COVID-19 in the Pediatric Population

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Dear Editor,

On January 30, 2020, the World Health Organization (WHO) declared Coronavirus (CoV) disease 2019 (COVID-19) epidemic as a public health emergency. All age groups are susceptible to COVID-19. Pregnant women are at high risk of acquiring the infection possibly due to the immunologic changes of gestation. However, there is no evidence so far for severe outcomes for mothers. Premature delivery was reported in pregnant patients with COVID-19 but it was unclear whether it was related to the infection (Shen & Yang, 2020; Schwartz, 2020; Lu Q& Shi , 2020).

Three neonatal cases with COVID-19 have been reported. The first neonate was a 17-day-old baby diagnosed by the home caregiver; the second had fever at age 5 days, and mother was a confirmed patient of COVID-19; the third was a newborn in emergency cesarean section of a suspected maternal patient and the mother was diagnosed postpartum. The presence of

COVID-19 vertical transmission to infant, during delivery or breastfeeding remains to be confirmed (Shen & Yang, 2020).

A study evaluated 9 hospitalized infants infected with COVID-19. All had at least one infected family member in which the infant's infection occurred thereafter. None of them showed clinical progression requiring intensive care, corticotherapy, mechanical ventilation or any severe complications (Wei et al., 2020). Interestingly, a study showed a high frequency (83.3%) of COVID-19 RNA detection and prolonged virus RNA shedding in feces of pediatric patients for more than one month. This highlights a likelihood of poor performance of current case definitions of COVID-19, especially in infants (Cai et al., 2020).

Another study demonstrated that chest imaging alterations in infected children with COVID-19 might occur earlier than clinical symptoms and that allow early identification of the large under-diagnosed suspected pneumonia cases. Close observation is necessary for children with either mild symptomatic or asymptomatic infection. However, it should be combined with a detailed history and nucleic acid detection testing (Wang et al., 2020).

Therapeutically, experts do not recommend use of antiviral agents, or empirical antibiotics, for the treatment of self-limited non-severe cases due to lack of evidence regarding effectiveness of such therapies in the pediatric population (Xia et al., 2020).

In conclusion, most of the pediatric patients with COVID-19 have mild symptoms, without fever or pneumonia, and will recover within 1–2 weeks after disease onset. No severe cases or deaths have been reported in pediatric patients. Suggested reasons for children being less susceptible to COVID-19 include a more active innate immune response and healthier

respiratory tracts as they have not been exposed to cigarette smoke and air pollution as adults (Lee et al., 2020).

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