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COVID-19 affects Healthy Pediatricians more than Pediatric Patients

Nima Rezaei

1. Research Center for Immunodeficiencies, Children's Medical Center, Tehran University of Medical Sciences, Tehran, Iran

2. Department of Immunology, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran

3. Network of Immunity in Infection, Malignancy and Autoimmunity (NIIMA), Universal Scientific Education and Research Network (USERN), Tehran, Iran

Corresponding author: Nima Rezaei, MD, PhD

Mailing address: Children's Medical Center Hospital, Dr. Qarib St, Keshavarz Blvd, Tehran 14194, Iran

Tel: +9821-6692-9234; Fax: +9821-6692-9235; E-mail: rezaei_nima@tums.ac.ir

LETTER

Coronavirus disease 2019 (COVID-19), starting from China late December, has spread rapidly throughout the world, leading the World Health Organization (WHO) to consider it a pandemic. In about four months from starting this outbreak, more than 1,000,000 patients have been affected (Date: April 4th) (1).

Meanwhile it seems that children are less likely to be affected in comparison with adults; among the affected children, the majority will have mild symptoms and some even asymptomatic (2,3,4). The report from Chinese Center for Disease Control and Prevention showed that among about 70,000 cases, less than 1% was at the age group of less than 10 years (5).

The first official COVID-19 case was announced on Feb 19th, 2020 in Iran. The daily situation report on COVID-19, 4 weeks later, showed that less than 1% of about 15,000 confirmed cases were children younger than 10 years of age (March 16th, 2020) (6). In the Children's Medical Center, which is the pediatric center for excellence in Iran, there are 348 beds for pediatric patients with bed occupancy rate of 94.7% and patient's average length of

stay of 3.3 days. During a 4-week period since the first identified case in the country, there were only 3 positive cases with COVID-19, which can estimate the frequency of 1 per 1000 admitted pediatric patients; meanwhile among 60 pediatricians who are working in this hospital as the faculty members, 5 were positive for COVID-19 real-time reverse transcription polymerase chain reaction (rRT-PCR), with frequency of 8.3 percent, which is much higher than the frequency of COVID-19 in general population (about 2 per 10,000) during the 4-week period. It seems that aging is a condition which is associated with inflammation, while children might have immature anti-inflammatory response. So, possibility an increased inflammatory reaction is expected in adult subjects, compared to children (7).

It seems that not only the pediatricians, but also other health-care professionals are at a higher risk of infection with COVID-19 (8). The report from Italy shows that around 20% of health-care professionals have become infected (9). Health-care professionals are at the frontline of fighting with COVID-19 in the hospitals, where visiting patients and their parents, who are potentially carrier for COVID-19, even if not infected. Indeed they are under an excessive amount of workload pressure and psychological distress during the pandemic, which led to caregiver burnout (10). Pediatricians, especially those who have children at home, not only have concerns in passing the infection to their children, but also are under pressure of long work hours in pediatric hospitals and not caring enough their children during quarantine period with school closures and social distancing policies (8). Therefore the health-care systems should be very careful about the physical and mental health of health-care professionals. Easy access to personal protective equipment, especially for those who are visiting patients with COVID-19 and psychological support of those who are losing their patients and colleagues, especially those who cannot see their family members for a long time are necessary.

Acknowledgement. This is dedicated to honoring the memory of our brave fallen doctors and nurses who fought against COVID-19.

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