

LETTER TO EDITOR (VIEWERS CHOICE)

## CLINICAL PRESENTATION OF COVID-19 IN CHILDREN, A NARRATIVE REVIEW OF FIVE REPORTED CASE SERIES

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### KEYWORDS

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According to previously published descriptions of the novel coronavirus [COVID-19 (SARS-CoV-2)] epidemiological and clinical behavior, it is known that the disease is less frequent and milder in pediatric patients, and the clinical manifestations are similar to those of adults.<sup>1</sup> There are relatively few pediatric articles. We retrieved the published information from most important case series about clinical manifestations on pediatric patients diagnosed by reverse transcriptase-polymerase chain reaction (RT-PCR) (2-6). Bibliographic research was performed via PubMed data base collecting medical investigation published from January to April 2020 reporting cases series of COVID-19 describing clinical features. Inclusion criteria were as follow:

1. Only articles in English language were included.
2. Articles reporting at least five patients in case series describing pediatric population (under 19 years of age)
3. Clinical studies showing the frequency of at least three symptoms were selected.

From all of the articles, the patients with each of the symptoms were summarized. The information was analyzed and the percentage of each of the symptoms

was obtained. Each of the symptoms were analyzed individually, if the article did not report a particular symptom, it was not taken into account to obtain percentages. We included five articles.<sup>2,3,4,5,6</sup> The results are shown in table 1. Fever, cough and sore throat were the predominant symptoms, but gastrointestinal symptoms were also important. As more studies have been published, the description of the cases has become clearer. The fact that not all of the articles analyze the whole of the symptoms represents a disadvantage for the physician to detect suspicious cases. The results of our study characterize in a clearer way the clinical spectrum of the pediatric patient with COVID-19 compared to the series of adult cases. The results show clearly that pediatric patients with COVID-19 present a less florid clinical picture compared to adult patients. Separately, each one of the symptoms in the pediatric populations presents in a minor percentage of cases than in the adult population. Cough, fever and respiratory distress have been the most frequent triad of symptoms cited in publications although it is non-specific<sup>7</sup> and shares this spectrum of symptoms with multiple viral and bacterial respiratory diseases. Even with a non-specific clinical feature, certain patterns can

**Table 1.** Clinical characteristics in children with COVID-19.<sup>2,3,4,5,6</sup>

Study	Total Cases	Fever	Cough	Sore Throat	Headache	Myalgia	Shortness of Breath	Diarrhea	Rhinitis	Nausea/Vomit	Fatigue
Qiu et al	36	13	7	2	3	NA	1	2	NA	2	NA
Lu et al	171	83	71	79	NA	NA	49	15	13	11	13
Wu et al	74	20	24	0	2	0	2	3	18	NA	5
Bialek et al	291	213	158	71	81	66	39	37	21	31	NA
Li et al	22	14	13	NA	NA	NA	NA	NA	NA	NA	NA
Positive/available(%)		343/594 (57.7)	287/594 (46.5)	152/572 (26.6)	86/401 (21.4)	66/365 (18.1)	91/572 (15.9)	57/572 (10)	52/ 536 (9.7)	44/498 (8.8)	18/245 (7.3)

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be defined. Fatigue, which is the third most frequent symptom in adult patients is seldom reported in children.<sup>2,3</sup> There is low frequency of rhinorrhea, sneeze and nasal congestion in patients with COVID-19.<sup>3</sup> This contrasts with descriptions of other respiratory virus

particularly influenza virus. This becomes of special importance in the face of the feared risk of a second wave of COVID-19, which could coincide with the influenza peak expected in the following months to differentiate between COVID-19 and influenza infection. Loss of taste and smell has been described as a very specific symptom in adults but is rarely reported in children.<sup>8</sup>

#### **Compliance with Ethical Standards**

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Conflict of Interest: None

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