



Clinical Profile and Outcome of Children Infected with SARS-CoV-2

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To the Editor: Children of all ages are susceptible to coronavirus disease (COVID)-19 and accounted for 1%–5% of diagnosed cases across the world [1]. Exact Indian data on children are not yet known; however data from Tamil Nadu showed 5.6% [2]. We describe, clinical profile and outcome of children (1 mo to 12 y), who were infected with SARS-CoV-2 [reverse transcription polymerase chain reaction (RT-PCR) confirmed], admitted at KIMS, Hubballi during April to September 2020. A total of 68 children were confirmed with SARS-CoV-2. Thirty nine (57%) were female with F:M ratio 1.3:1 and with median age of 5.5 y (IQR: 2, 9.5 y). The majority age group affected was 6–12 y (47%). Only 20 (29%) were symptomatic at the time of admission, remaining were found to be positive for COVID-19 during family/contact/traveller's screening. Our observations noted that 71% (48) were mild/asymptomatic, 26% (18) moderate, 3% (02) severe, and none of these cases were critical as per severity classification of WHO. Among 20 (29%) symptomatic cases, the common symptoms in descending frequency were fever 14 (70%), cough 10 (51%), difficulty in breathing 04 (20%). Four children had gastrointestinal (GI) symptoms like loose stool and vomiting. Two children had co-morbidities (congenital heart disease and cerebral palsy). Six (9%) children had leucopenia [white blood cells (WBC) < 5000]. Eight (12%) had thrombocytopenia (< 1.5 lakh). None of our children received any antiviral agents. Six children received antibiotics (amoxicillin). Repeat swab was taken for 18 cases after an average of 7 d and found negative. Average duration of hospital stay was 11 d. There was no mortality in our study.

Most of our COVID-19 children were asymptomatic. Among symptomatic children fever was predominant and GI symptoms were observed in few children. Systematic review by Ludvigsson also had similar observation [3]. The possible cause for GI manifestation would be the expression of angiotensin-converting enzyme 2 (ACE-2) receptors on all well-differentiated epithelial cells including enterocytes in small intestine [4]. All our symptomatic children improved with only supportive therapy.

Declarations

Conflict of Interest None.

References

1. Tezer H, Bedir DT. Novel coronavirus disease (COVID-19) in children. *Turk J Med Sci.* 2020;50(SI-1):592–603.
2. Gupta N, Prahara J, Bhatnagar T, et al. Severe acute respiratory illness surveillance for coronavirus disease 2019, India, 2020. *Indian J Med Res.* 2020;151(2 & 3):236–40.
3. Ludvigsson JF. Systematic review of COVID-19 in children shows milder cases and a better prognosis than adults. *Acta Paediatr.* 2020;109:1088–95.
4. Song R, Preston G, Yosypiv IV. Ontogeny of angiotensin converting enzyme 2. *Pediatr Res.* 2012;71:13–9.

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