Negligible circulation of influenza in COVID times in Northern India

Sir, After its first appearance in China in December 2019, COVID-19 pandemic has engulfed the whole globe. Concurrent with circulation of the SARS CoV-2 virus, that of influenza virus was reported to be significantly reduced, especially in countries of the Southern hemisphere (SH) which reported virtually no influenza circulation in the peak season of influenza activity.[1] However, scant data exist from developing countries in South Asia. The first patient with COVID-19 in India was reported on January 30, 2020 and a country-wide lockdown was enforced by the Indian authorities in March 2020 to mitigate the circulation of the virus. We herewith report on influenza circulation in the 2020–2021 season from a temperate region in Northern India where we have earlier demonstrated a Northern hemispherical (NH) seasonality as against a dominant Southern hemispherical (SH) pattern of circulation in the rest of the country.[2,3] Starting October 2020, 1102 patients (median age 55 years, 665 males), hospitalized for acute respiratory illness were recruited. Nasal and throat swabs were and tested for influenza A and B by the reverse transcription-polymerase chain reaction using standard CDC recommended primer/probes. Further subtyping for positive samples was done into A/H1N1 and A/H3N2 and B/Yamagata and B/Victoria. Patients testing positive for SARS CoV-2 were excluded. Only 3 (0.27%) of the 1102 samples tested positive for influenza (A/H3N2 = 2, B/Yamagata = 1). Fifty-two (4.7%) patients had been vaccinated for influenza. Our data replicate the circulation of influenza seen in other geographies in the SH temperate region for the 2020 winter and contrasts sharply with the circulation observed in the previous years [Figure 1]. Importantly, the reduced circulation was observed in spite of rather high tourist traffic to the region with tourists from all over the country and outside flocking to Kashmir for the winter months. Adoption of COVID-19 mitigation measures such as use of masks likely contributed to the significant drop in influenza virus circulation as both of the infections are mainly transmitted by respiratory droplets, even as there is an increasing evidence of airborne transmission for SARS CoV-2 viral infection. Influenza viral infection is, however, less infectious than SARS CoV-2. (Ro of 0.28 compared to SARS Co 2 with and Ro of 2-3.5).[4] Other measures such as closure of schools for most of the year, intermittent lockdowns, and curbs on mass gatherings, social distancing, etc., also likely contributed to reduced influenza circulation.

Although influenza vaccination is regarded as the most effective means of prevention of influenza and its complications, our data, in tandem with the global decline in influenza virus circulation, argue for routine adoption of measures like social distancing, use of masks and other respiratory etiquettes (covering of cough/sneeze, etc) in future influenza seasons. These measures could also help transmission of other respiratory viruses that cause human disease. Our data also underscore the importance of continued surveillance for circulation of respiratory viruses so as to inform policy.

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Conflicts of interest
There are no conflicts of interest.
Dear Sir,

Since December 2019, the Severe Acute Respiratory Syndrome Corona Virus 2 (SARS CoV-2) has been creating a havoc around the world. [1] A particular concern has been the effect of this virus on health and safety of children. There have been unprecedented changes to school curriculum and teaching methodologies. Children comprise a very small proportion of all COVID 19 patients, and they have a lower risk of progressing to severe infection than adults. Most infected children remain asymptomatic or with only mild infection. [2,3]

We studied details of all patients including children who required admission to our tertiary COVID care hospital between July 1, 2020, and August 31, 2020, when the COVID pandemic was rapidly spreading in India. There is still inadequate literature about differences in severity of COVID-19 disease in adults and children who have been admitted to a hospital. This can have important bearing on morbidity and mortality. With an aim to assess the differences in severity of COVID-19 infection between adults and children, we embarked upon this study after ethical approval from our institute.

During the period of study, there were 984 admissions of patients who were symptomatic with COVID-19. At our institute, admission was denied to asymptomatic patients despite being reverse transcriptase-polymerase chain reaction positive for the disease. Out of these, 984 patients, 20 were children under 14 years of age and the rest were adults. Patient details including demography, clinical, and laboratory data were collected from the Medical Records department and then analyzed.

Whereas all adult patients were symptomatic as per our institute admission policy at the time, we noted that five children were asymptomatic on admission. They were kept in the hospital as their parents had been found to be positive along with them. Thus to ensure proper care, these children were kept with their parents. A positive contact history was found in significantly higher numbers in children as compared to adults (30% vs. 8.92% \(P < 0.05\)). Proportion of females infected with COVID-19 was statistically higher in children as compared to adults (\(P < 0.05\)) though this could be by chance. Fever was found in lesser number of children compared to adults (\(P < 0.05\)).

A lower proportion of children requiring hospital admission progressed to develop severe COVID infection as compared to adults though it was not found to be statistically significant. Breakdown of the severity of cases may be found in Table 1. Case fatality rates in children have been shown to be >1%; [4] however, in our subset of admissions in this study showed that mortality in children requiring hospitalization is not significantly lower compared to adults (20% vs. 25.82%, \(P > 0.05\)). One reason for this apparently high mortality rates could be because we are a tertiary pediatric care institute and one of the few dedicated COVID care hospitals in the...