

Letter from Spain

The outbreak of the new severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) at the end of December 2019 caused great concern in patients with chronic disease as they were thought to be at increased risk for severe illness. Initial studies at the beginning of the pandemic found a lower incidence of coronavirus disease 2019 (COVID-19) in childhood compared with adults. People younger than 18 years are thought to account for only 1%–2% of detected COVID-19 cases worldwide¹ and are usually asymptomatic or have mild symptoms.² However, its impact on children with recurrent wheezing and asthma has not been clearly defined. Recurrent wheezing is estimated to affect approximately one third of preschool-aged children, while asthma is the most common respiratory disease in childhood. In a pandemic scenario due to a respiratory virus, our concerns as paediatric pulmonologists were: how will SARS-CoV-2 impact children with respiratory disease? And what will parents do about maintenance treatments for their children?

In Spain, one of the most affected countries during the first wave of COVID-19, mitigation strategies led to

nationwide lockdown from 14 March to 21 June 2020; as a preventive measure, schools were closed for 16 weeks (Figure 1). To answer these questions, we analysed the impact of lockdown measures on treatment and control of asthmatic children and preschool-aged children with wheezing from Madrid and Catalonia. Furthermore, we studied the clinical outcomes of those children with positive IgG COVID-19 serology during the first wave of COVID-19. We carried out a questionnaire-based study among 475 children and adolescents (younger than 16 years old) with recurrent wheezing and asthma, of whom 233 had serology for SARS-CoV-2 IgG assessed. Our study revealed that children maintained good therapeutic adherence after lockdown (as 81.7% maintained the same anti-asthmatic treatment), following recommendations given by worldwide scientific societies to those patients with underlying respiratory disease, such as asthma.³ It is likely that due to fear of respiratory complications, parents/caregivers may have been more vigilant that their children maintained prescribed treatments.



FIGURE 1 During Spain's first national lockdown, streets in Barcelona were nearly empty (credit: Guillem Dotu) (A) while children stayed and schools were closed for 16 weeks (B)

Marcelo Rázquin Arias and Paula Sol Ventura Wichner contributed equally to this study.

We also observed that, according to a validated questionnaire to assess asthma control in paediatrics,⁴ most of them (87.7%) maintained good asthma control during isolation. As with similar recently published findings,⁵ the high rates of well-controlled asthma observed could be related to different reasons: better therapeutic adherence, lower circulation of respiratory viruses (mainly rhinovirus) because of lockdown measures and improvement in air quality.

It is remarkable that nearly a third of the children (34.9%) in our study required the use of reliever treatment at some point during isolation, especially among children aged 12–15 years. This could be explained by lower therapeutic adherence in adolescents and increased exposure to indoor allergens as a consequence of the ‘stay-at-home’ message. Of the 233 children, 7.3% tested seropositive to IgG SARS-CoV-2. Regarding this subgroup, nearly 40% reported mild symptoms (cough/respiratory distress, fever, headache, gastrointestinal problems and sore throat) or were asymptomatic. No significant differences were observed in the frequency of symptoms compared to children with negative results for IgG SARS-CoV-2.

The current situation in Spain differs significantly from that when the pandemic began. We are witnessing the end of the fifth wave of the pandemic. At the time of writing this letter, August 2021, Spain has almost 4.8 million confirmed cases, 84.640 deaths and nearly 70% of the Spanish population (older than 12 years) fully vaccinated, being one of the countries with the highest vaccination rates. However, the increase in cases observed in children and adolescents due to new strains of SARS-CoV-2, the relaxation of anti-COVID measures during late spring (we observed an unseasonal rise in respiratory syncytial virus [RSV] cases) and the eventual re-circulation of seasonal viruses (rhinovirus, RSV and influenza) this coming fall will challenge us to be vigilant to keep our children and adolescents with respiratory diseases healthy and their condition well-controlled.

In a few days children and adolescents will return to schools, and everything suggests that in addition to maintain preventive treatments, it will be mandatory to maintain social distancing measures, the use of face masks, well-ventilated environments and hand washing. It will also be necessary to continue monitoring the impact of this new coronavirus on the paediatric population at risk.

KEYWORDS





anti-asthmatic agents, asthma and early wheeze, COVID-19

CONFLICT OF INTEREST

None declared.

HUMAN ETHICS APPROVAL DECLARATION

Survey questionnaire was designed by paediatricians from HM Hospitals and approved by IRB Committee (CEIm Code: HM20.04.1615-GHM).

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