Older children and adolescents ranged from 1 year to 21 years of age. Mean NP viral load was significantly higher in infants as compared with older children and adolescents (mean Ct, 21.05 vs 27.25; \( P < .01 \)) (Figure 1). However, a significantly lower proportion of infants had severe disease as compared with the older patients (\( n = 1 \) [5%] vs \( n = 12 \) [32.4%]; \( P = .02 \)). Mean time to test positivity from symptom onset was lower in infants than older children (2 vs 3.8 days, \( P < .01 \)). Similar proportions in both groups were tested within 7 days of symptom onset (91.2% vs 100%, \( P = .47 \)).

Our report suggests that symptomatic infants have higher NP viral loads at presentation but develop less severe disease as compared with older children and adolescents. Whether this is attributable to slightly earlier presentation to care versus host biology requires investigation. These data have implications for mitigating spread, especially in congregate settings (eg, child care centers) or hospital units (eg, neonatal ICUs) that serve this group.

Note

Potential conflicts of interest. The authors: No reported conflicts of interest. All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest.

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Chad Poloni and Chрисos Tsoukas

Correspondence: C. Tsoukas, McGill University Health Centre, Montreal General Hospital, 1650 Cedar Ave, Room AB-173, Montreal, QC, Canada H3G 1A4 (christos.tsoukas@mcgill.ca).

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Alterations in Smell or Taste—Classic Coronavirus Disease 2019?

To the Editor—There are increased reports of loss of smell (anosmia) and taste (ageusia) in patients with confirmed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection causing coronavirus disease 2019 (COVID-19), in particular in the setting of mild disease. The data to date have been presented predominantly from postdiagnosis surveys or retrospective cohort series [1–5]. The pathogenesis is postulated to be due to invasion of the olfactory neuroepithelium and olfactory bulb, which has been seen previously in other coronaviruses, due to the high expression of angiotensin-converting enzyme (the receptor that allows virus cellular entry) present in the respiratory system [1, 6]. From a retrospective adult cohort of confirmed SARS-CoV-2 in Germany (n = 72), Luers and colleagues noted that 74% of patients reported anosmia and 69% reported ageusia [7]. Prior to this, from a retrospective cohort study of COVID-19 patients interviewed 5–6 days postdiagnosis, Spinato et al also noted that 64.4% reported alterations in taste or smell [1]. However, both of these studies suffer from the absence of a control group and significant limitation of recall and selection bias. Further, both fail to answer the question of whether anosmia and ageusia are, in fact, more frequent in COVID-19 patients than in those with other upper respiratory tract infections.

To address the identified deficiencies of current data presented, we used a prospectively collected dataset from patients assessed at our institution's COVID-19 screening clinic (Melbourne, Australia) between 1 April 2020 and 22 April 2020 (data collection, see eMethods) to determine if anosmia and/or ageusia were more frequent in patients with confirmed SARS-CoV-2 infection.

A total of 1788 patients underwent clinical evaluation; we identified 40 (2.2%) patients who reported both anosmia and ageusia, with 3.1% (56) for anosmia alone and 4.1% (74) for ageusia alone. Similar proportions were seen in the subgroup of 1236 patients who subsequently underwent SARS-CoV-2 testing (eTable 1). The distribution of symptom prevalence over time is shown in eFigure 1. In those who underwent SARS-CoV-2 testing, anosmia or ageusia was more frequently reported in females and in those who reported more symptoms (eTable 1). Of those who reported anosmia or ageusia, 9.3% tested positive for COVID-19 (positive predictive value), while the negative predictive value was 98.5%. Anosmia and/or ageusia were more common in COVID-19–positive than in COVID-19–negative patients.

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