

The importance of identifying risk factors for the persistence of COVID-19 related olfactory disorders

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Dear Editor,

We have read with pleasure the article by Wu et al. [1], which analyzes the rate of olfactory dysfunction (OD) and recovery in a large series of 608 patients with confirmed diagnosis of SARS-CoV-2 infection. The authors have reported a frequency of OD during infection at 36.2%, with complete resolution observed in 63.2% of cases at a median follow-up of 36 days. Individuals presenting with other sinonasal and influenza-like symptoms, as well as those not requiring hospitalization, showed a higher rate of OD during infection. Meanwhile, a higher rate of persistent olfactory dysfunction (POD) was observed among women.

COVID-19 related POD have emerged as a real health emergency, with a frequency that hovers around 5–10% of all infected individuals two years post-infection [2,3]. The short median follow-up in Wu et al. study does not permit definitive conclusions to be drawn, given that recovery is significant up to 3 months post-infection [4]. However, their search for risk factors for the development of POD is praiseworthy and of critical importance in identifying patients for early specific treatment, which is much more effective the sooner it is initiated [5,6].

Several authors have investigated potential risk factors in patient series with at least six months of follow-up, identifying possible correlations with the female [7] or male gender [8], OD as an initial symptom [9], baseline SNOT-22 ≥ 4 [10], duration of positivity [10], low levels of nasal IgA [11], advanced age [8,12–16], dyspnea during infection [13], absence of nasal congestion [13], complete anosmia during infection [15], presence of parosmia [17], cigarette smoking [18], abdominal pain or headache during infection [19], Mild COVID-19 [20], and infection during the first [21] or second [22] epidemic wave.

However, none of these factors have been definitively established probably due to the diversity in methodologies and patient populations across studies that can lead to varied findings. Additionally, many potential risk factors are likely interrelated, making it difficult to isolate

their individual impacts. These challenges highlight the need for more comprehensive, long-term studies that can better clarify the relationships between these factors and COVID-19-related POD. The identification of solid risk factors could significantly enhance early detection, intervention strategies, and potentially the prognosis of these patients.

Finally, it must be emphasized that the data we have obtained on these patient series dating back to the early pandemic waves are likely not comparable to the current waves driven by the Omicron variant. The latter has completely changed the epidemiology of COVID-19 related chemosensory disorders which, fortunately, appear to be less frequent and only rarely persistent [23–25].

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Declaration of competing interest

The authors declare that they have no conflict of interest.

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