Olfactory and Oral Manifestations of COVID-19: Sex-Related Symptoms— A Potential Pathway to Early Diagnosis

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INTRODUCTION

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by a newly discovered coronavirus. The causative pathogen was identified as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which is the seventh type of the coronavirus family to affect humans.[1,2] On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic.

METHOD

Case series, study conducted between March 25, 2020, and April 15, 2020.
A 128 ambulatory diagnosed COVID-19 by Polymerase chain reaction (PCR) assay participated in a specially designed web-based questionnaire, assessing demographic and epidemiological date, initial symptoms of common viral diseases, olfactory and taste functions, xerostomia and orofacial pain

OBJECTIVES

The coronavirus disease 2019 (COVID-19) pandemic poses a threat to global health. Early diagnosis is an essential key to limit the outbreak of the virus.
This study assessed early manifestations of COVID-19, with an emphasis on olfactory and oral disorders.

RESULTS

A total of 58 men and 70 women participated. Initial symptoms were cough (59.4%), weakness (47.7%), myalgia (46.9%), fever (42.2%), headache (40.6%), impaired sense of smell (38.3%), impaired sense of taste (32.8%), sore throat (26.6%), runny nose (26.6%), and nasal congestion (22.7%). The most common combination of symptoms was cough and weakness (37.5%). A total of 25.8% reported olfactory and taste dysfunctions in the absence of other symptoms. In a comparison between the sexes, cough and runny nose were the most common combination in women (P = .018). A total of 38.3% of patients reported olfactory dysfunction as an initial symptom.
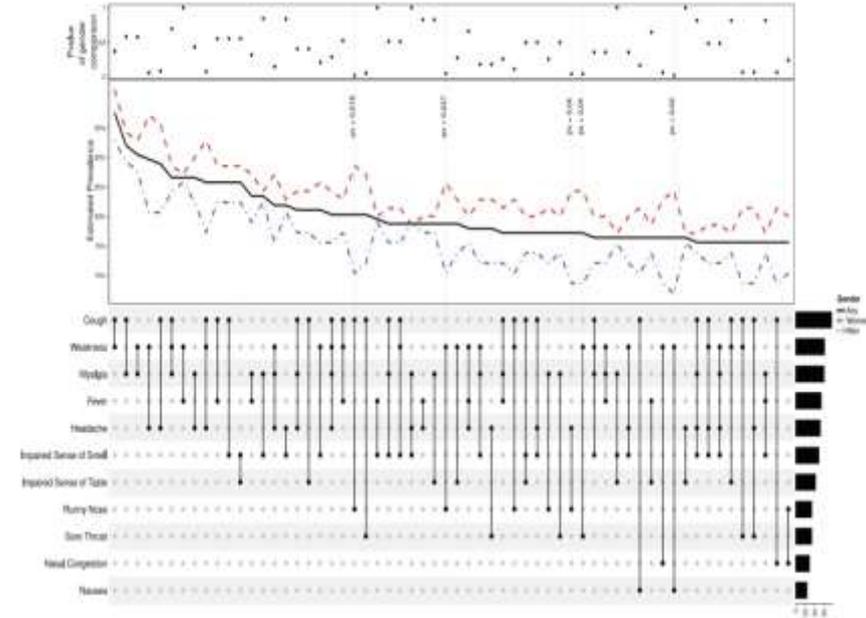
Figure 2. Combinations of initial symptoms. The grid in the lower part maps the combination of symptoms examined (x-axis); the corresponding value on the y-axis is the overall prevalence in the sample (black solid line), prevalence among men (blue dot-dashed line), and prevalence among women (red dashed line). The upper panel reports that Fisher's odds ratio test for the null odds ratio of men vs women is 1. For example, the far-left column shows the prevalence of patients who experienced both cough and weakness: ≈35% overall, ≈33% of women, and ≈41% of men. Odds ratio with P≈ .4. Sixty most frequent combinations are displayed; in 5 combinations, women had significantly increased odds compared to men with P < .05 (gray vertical lines).

CONCLUSIONS

A considerable number of patients presented with olfactory and oral disorders. Interestingly, women presented with a different cluster of symptoms than men, which may suggest a new clinical approach to diagnosing COVID-19 disease.