

## Upper Respiratory Tract Symptoms Cough, Rhinorrhea, Sore Throat? COVID Right? No! Rhinovirus!

### To the Editor:

Human rhinovirus (HRV) is the most common cause of upper respiratory tract infection worldwide, nearly year-round.<sup>1</sup> Clinical manifestations of HRV infection can be similar to those caused by the severe respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus responsible for the coronavirus disease 2019 (COVID-19) pandemic. Thus, most of the patients presenting with upper respiratory tract infection symptoms during the pandemic were tested with reverse transcriptase-polymerase chain reaction viral respiratory panels that included SARS-CoV-2 and other known pathogenic respiratory viruses including HRV. We report the incidence of HRV infections in our institution. We retrospectively reviewed the charts of the veterans who had positive reverse transcriptase-polymerase chain reaction for HRV from July 1, 2020, to February 28, 2021.

During this period, 32 cases of HRV infection and 363 cases of SARS-CoV-2, but no influenza cases, were identified! Figure 1 shows the incidence of both infections monthly. All 32 cases were tested in the emergency department. The median age of the HRV cohort was 54 (23–83) years; 84% were men; and 81% were White, 13% were African American, 3% were Asian, and 3% were Hispanic. Median body mass index was 29.9 (22–51) kg/m<sup>2</sup>. Main presenting symptoms were cough (75%), rhinorrhea (56%), and sore throat (22%); 2 of the

patients were asymptomatic. Most frequent comorbidities documented were hypertension (31%), current smoking (25%), chronic obstructive pulmonary disease (22%), and diabetes (19%); 4 of the patients had active malignancy (1 leukemia, 2 lymphomas, 1 melanoma), and 2 had chronic human immunodeficiency virus infection. Eleven patients (34%) received antibiotics (5 azithromycin, 3 amoxicillin, 1 cephalosporin/azithromycin, 1 fluoroquinolone (for otitis), and 1 cephalosporin [for pyuria in a pregnant woman]). Four required hospitalization: 1 with chronic obstructive pulmonary disease exacerbation, 1 for blood transfusion, 1 for depression, and 1 for cholecystitis. No deaths were recorded. There were no coinfections with HRV and SARS-CoV-2. However, 6 patients from the HRV cohort were also diagnosed with COVID-19—at a different time—this last year!

In a year marked by a novel coronavirus pandemic, affecting all aspects of life, from creating an unimaginable burden to health care, financial hardships to many, to a new norm of masking, social distancing, and meticulous hand washing, it is worth mentioning that, in the United States, national influenza activity has been decreased.<sup>2</sup> Human rhinovirus is likely able to be transmitted despite COVID control measures owing to its nonenveloped nature, which makes it resistant to lipophilic disinfectants.<sup>3</sup> Also, face masks are less efficacious in blocking HRV release in exhaled breath.<sup>4</sup> Interestingly, an increased number of HRV infections were noted in school children in Hong Kong who followed masking rules in the autumn of 2020.<sup>5</sup> Our findings highlight the possibility of HRV and other common cold viruses being captured during increased testing for SARS-CoV-2.

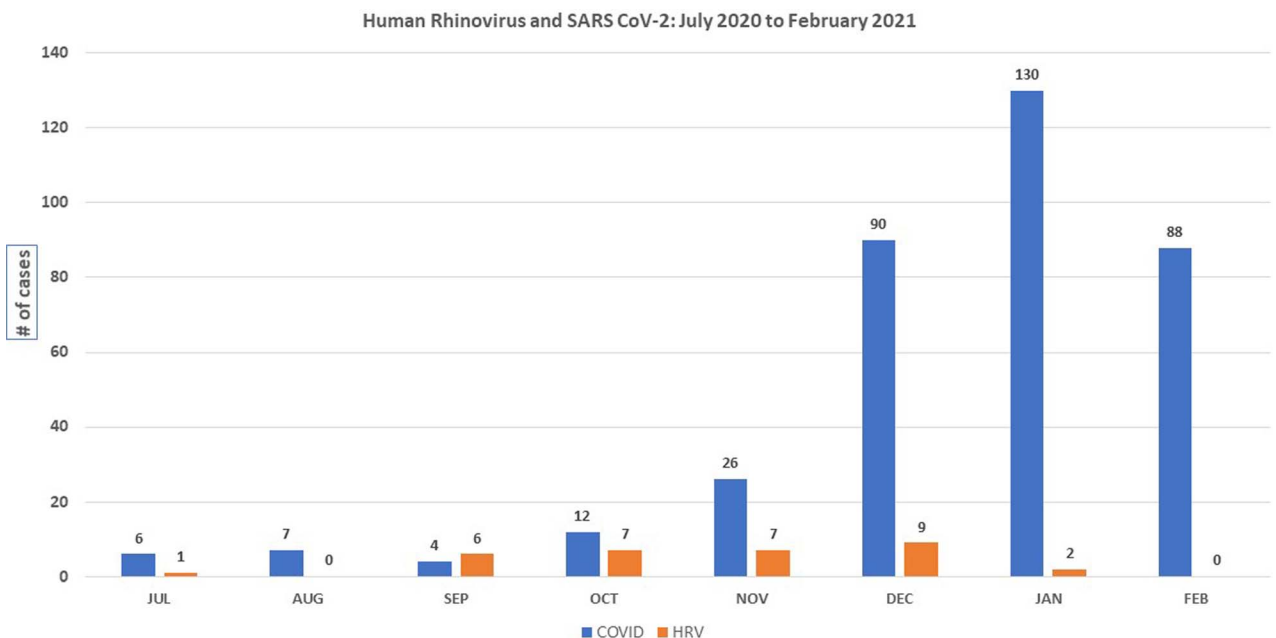


FIGURE 1. Human rhinovirus and SARS-CoV-2: July 2020 to February 2021.

**Inderjit Mann, MD**  
**Aikaterini Papamanoli, MD**  
 Department of Infectious Diseases  
 Stony Brook Medical Center  
 Stony Brook, NY

**Mary Creed, IT**  
 Department of Microbiology  
 Northport Veterans Affairs Center  
 Northport, NY

**Monique Thorne, EdD, MS, NPD-BC**  
 Department of Nursing  
 Infection Control  
 Northport Veterans Affairs Center  
 Northport, NY

**Zeena Lobo, MD**  
**George Psevds, MD**  
 Department of Infectious Diseases  
 Northport Veterans Affairs Medical Center  
 Northport, NY  
 george.psevds@va.gov

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