

Subjective Smell And Taste Changes Early In The COVID-19 Pandemic: Initial Results And 1-Month Follow-Up

Zachary Kons MS3¹, Daniel H. Coelho MD^{1,2}, Richard M. Costanzo PhD^{1,2}, Evan R. Reiter, MD^{1,2}

¹Department of Otolaryngology - Head & Neck Surgery

²Department of Physiology and Biophysics

Virginia Commonwealth University Medical Center - Richmond, Virginia



Objective

To assess the severity of and recovery from smell and taste changes experienced by patients during the COVID-19 pandemic.

Introduction

Since the beginning of the COVID-19 pandemic in early 2020, smell and taste loss has been recognized as a hallmark symptom of infection.^{1,2} Patients who have lost smell or taste due to the virus often ask if or when these senses will return. We present this 1-month follow-up study of a large, nationwide cohort of patients to address potential recovery of smell and taste loss with COVID-19.³

Methods

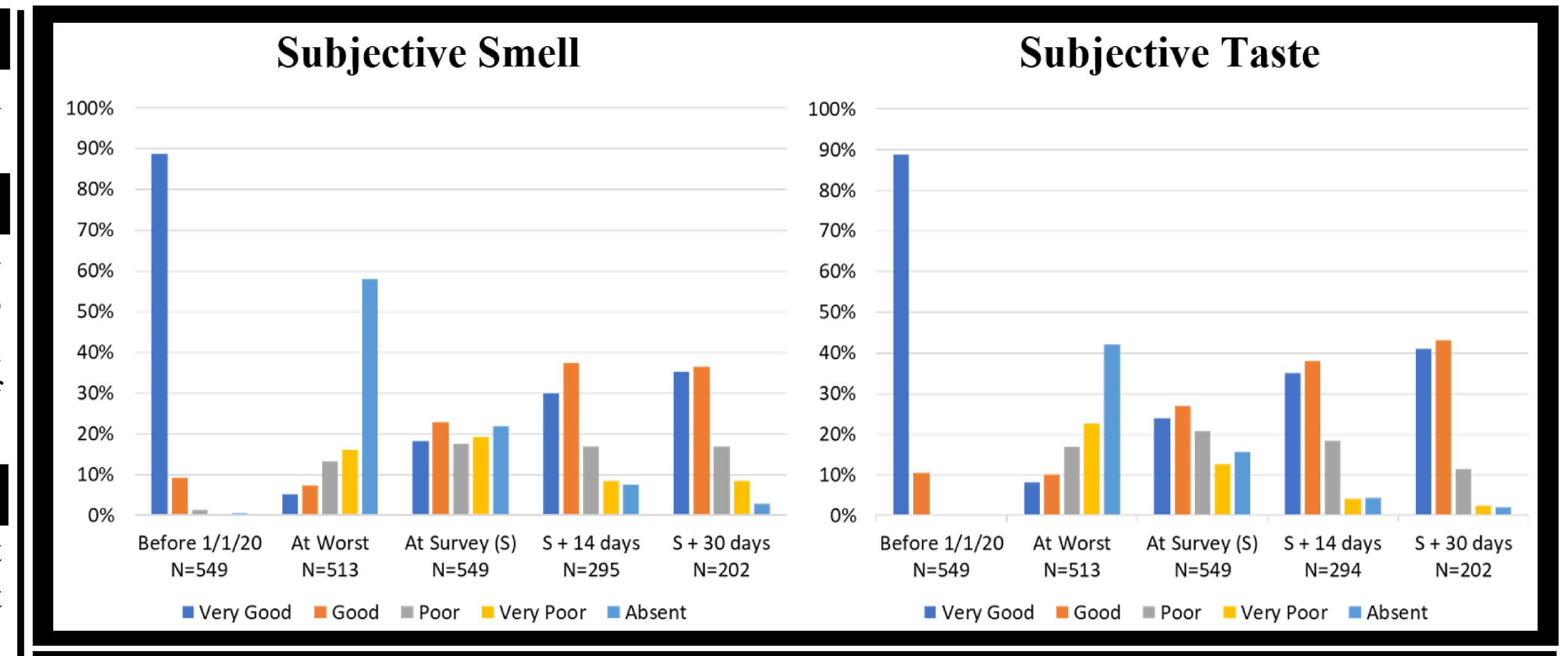
- A REDCap online survey was performed using social media recruitment between April 10, 2020 through June 7, 2020. Follow up surveys were sent at 14 days, 30 days, 3 months, and 6 months
- Participants rated smell and taste as "Very Good", "Good", "Poor", "Very Poor", or "Absent" at all time points

Inclusion Criteria (participants met one or both criteria):

- 1) Change in smell or taste occurring after January 1, 2020
- 2) Diagnosed COVID-19 by medical professional or (+) test

Results

- 549 participants met one or both inclusion criteria
 - 260 (47.4%) were diagnosed with COVID-19 by a medical professional or testing
 - 289 (52.6%) were not diagnosed, but experienced smell or taste change
- More than 60% of participants experienced a decrease in their smell or taste to "Absent" or "Very poor"
 - At 14-day follow up: Recovery of smell to "Very good" or "Good" in 67.1%. Recovery of taste to "Very good" or "Good" in 73.1%
 - At 30-day follow up: Recovery of smell to "Very good" or "Good" in 71.8%. Recovery of taste to "Very good" or "Good" in 84.2%



Discussion and Conclusions

- Smell and taste changes have proven to be a prevalent symptom of COVID-19 during the pandemic
- This study demonstrates that nearly 75% of participants with smell or taste loss during the pandemic recovered to "Very good" or "Good" smell or taste within 30 days
- While most patients recovered their smell or taste within the first 14 days, some patients experienced recovery between the 14-day and 30-day time points
- Patients can expect that they will most likely experience substantial recovery of smell and taste deficits caused by COVID-19 within the first 30 days after symptom onset

References

- . Gautier J.-F., Ravussin Y. A new symptom of COVID-19: loss of taste and smell. Obes Silver Spring Md. 2020;28(5):848. doi: 10.1002/oby.22809.
- 2. Coelho DH, Kons ZA, Costanzo RM, Reiter ER. Subjective Changes in Smell and Taste During the COVID-19 Pandemic: A National Survey-Preliminary Results. Otolaryngol Head Neck Surg. 2020 Aug;163(2):302-306. doi: 10.1177/0194599820929957.
- 3. Reiter ER, Coelho DH, Kons ZA, Costanzo RM. Subjective smell and taste changes during the COVID-19 pandemic: Short term recovery. Am J Otolaryngol. 2020;41(6):102639. doi:10.1016/j.amjoto.2020.102639

Funding: Medarva Research Foundation