

# Annals of Clinical and Medical Case Reports

Case Report

ISSN: 2639-8109 | Volume 8

## COVID-19 Associated Loss of Smell and Taste Treated with Gabapentin

Jean-Paul Lucke DO\*

Department of Medicine, USA

### \*Corresponding author:

Jean-Paul Lucke DO, CAQSM,  
Department of Medicine, USA,  
E-mail: jplucke@gmail.com

Received: 02 Feb 2022

Accepted: 15 Feb 2022

Published: 19 Feb 2022

J Short Name: ACMCR

### Copyright:

©2022 Jean-Paul Lucke DO. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and build upon your work non-commercially.

### Citation:

Jean-Paul Lucke DO, COVID-19 Associated Loss of Smell and Taste Treated with Gabapentin. Ann Clin Med Case Rep. 2022; V8(11): 1-2

### 1. Abstract

Throughout the COVID-19 Pandemic, the symptoms of loss of smell and taste have been commonly encountered by healthcare professionals, and in fact, have become an important screening tool. By some estimates, 96% of COVID-19 patients experience these symptoms to various degrees [1]. While the exact mechanism of cellular events that lead to loss of smell and taste is largely unknown, research is underway to better understand the process. The senses are usually regained with time but often can take months, and in some instances, be permanent [2]. Nearly one out of ten patients have not fully recovered by two months and treatment options so far are limited [3]. The use of a low dose of Gabapentin could be a possible treatment for anosmia and ageusia in COVID-19 patients.

### 2. Introduction

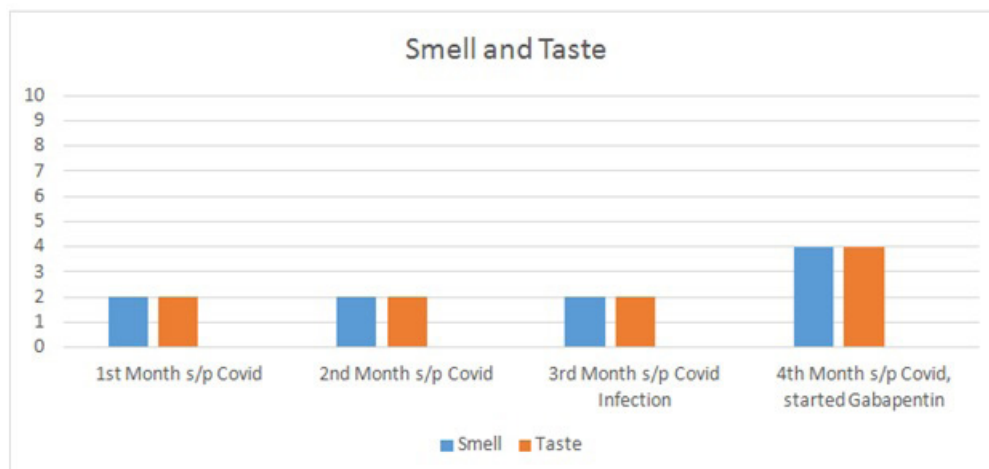
The following is a report of a patient with severe loss of smell and

taste for three months following COVID-19 infection affecting his daily life and without signs of improvement. A trial of low dose of daily gabapentin was implemented to attempt to treat the patient's condition.

### 3. Case Report

A 63 year old caucasian male with history of hypothyroidism and chronic intermittent low back pain presented to the clinic approximately 3 months following a COVID-19 infection. He was unable to smell or taste since his diagnosis, rating both his smell and taste a 2/10. This was bothersome to him and he stated there had been no improvement in the condition since it started. Physical examination was normal. His TSH was 1.2 and CBC, CMP, and Lipid Panel were unremarkable. He was started on Gabapentin 300 mg PO daily and at 30 days he reported a significant improvement in his symptoms, now rating his smell and taste a 4/10 and noting he could now taste foods he enjoyed including tomatoes.

### 4. Results



## 5. Discussion

This case report highlights a possible treatment of loss of smell and taste following COVID-19 infection with early improvement of symptoms. Anosmia after COVID-19 infection is not fully understood but possibly due inflammation or damage to nerve endings. Genetics may also play a role [1]. Another proposed mechanism of action is damage to sustentacular cells that support and assist olfactory neurons [4]. So far, treatment has included saline flushes and prescription steroid sprays [1]. Although the mechanism is still not well understood, gabapentin could be a useful medication to treat the loss of taste and smell associated with COVID-19. Gabapentin has a high affinity for binding sites of voltage-gated calcium channels, inhibiting the release of excitatory neurotransmitters and is commonly used for neuropathic pain and injury including radiculopathy, diabetic neuropathy and post-herpetic neuralgia. Gabapentin is generally well tolerated with the most common side effects being fatigue, dizziness, and headache [5].

## 6. Conclusion

In the case above, a patient's loss of smell and taste following COVID-19 infection significantly improved with the use of a 300 mg of Gabapentin daily for 30 days. Continued follow up of the patient's condition is needed and will be reassessed at 6 months.

## References

1. Kekatos Mary. How does COVID-19 cause people to lose sense of smell? And How Many People regain it?. ABC News. Jan 2022.
2. Butowt R, von Bartheld CS. Anosmia in COVID-19: Underlying Mechanisms and Assessment of an Olfactory Route to Brain Infection. *Neuroscientist*. 2021; 27(6): 582-603. doi:10.1177/1073858420956905.
3. Printza A, Katotomichelakis M, Valsamidis K, et al. Smell and Taste Loss Recovery Time in COVID-19 Patients and Disease Severity. *J Clin Med*. 2021; 10(5): 966. doi:10.3390/jcm10050966.
4. DH Brann, T Tsukahara, C Weinreb, et al. Non-neuronal expression of SARS-CoV-2 entry genes in the olfactory system suggests mechanisms underlying COVID-19-associated anosmia *Sci Adv*. 2020; 6(31): eabc5801.
5. Yasaei R, Katta S, Saadabadi A. Gabapentin. In: StatPearls. Treasure Island (FL): Stat Pearls. 2022.