

# INCIDENCE AND CHARACTERISTICS OF AGEUSIA IN COVID-19 PATIENTS



Dr.Nandhini.R, under the guidance of Dr.K.Srinivasan, Saveetha Medical college and Hospital

## INTRODUCTION:

COVID outbreak caused by SARS COV 2 began in the month of November 2019 in Wuhan, a province in China. COVID 19 infects in different ways based on each individual's immune response to the virus & viral strains. Initially, anosmia and ageusia were not considered to be symptoms of SARS-COV 2. But during the month of April and May, many subjects infected with SARS-COV 2 experienced severe olfactory dysfunction and gustatory dysfunction.

## METHODOLOGY:

This prospective study included 456 hospitalized COVID 19 confirmed cases by RT-PCR method who met the inclusion criteria between may to June 2020 in a tertiary care center, Thandalam. All four taste sensation was tested using the guidelines given by human neurophysiology laboratory manual of the department of electrical and computer engineering university of Cyprus. After testing, an online questionnaire was provided to the participants & were asked to grade taste sensation from 0 to 12.(0-nosensation,12-maximum/utmost sensation).Procedure was repeated on day 1,3,5 & 7 .

## RESULTS:

Among the study participants 18.6% had ageusia (n= 85). The most commonly affected age group was 20-39 years,61% (n=52),there was a male predominance in sex distribution (56%),given in table-1.Symptoms associated with ageusia in COVID is given in figure-1. Taste sensation which disappeared and appeared first is given in table-2. The average duration of loss of taste was 6 days. 96.5 % of study participants had recover by day 8 & 3.5 % of patients had a persistent loss of taste beyond 8 days.

TABLE-1

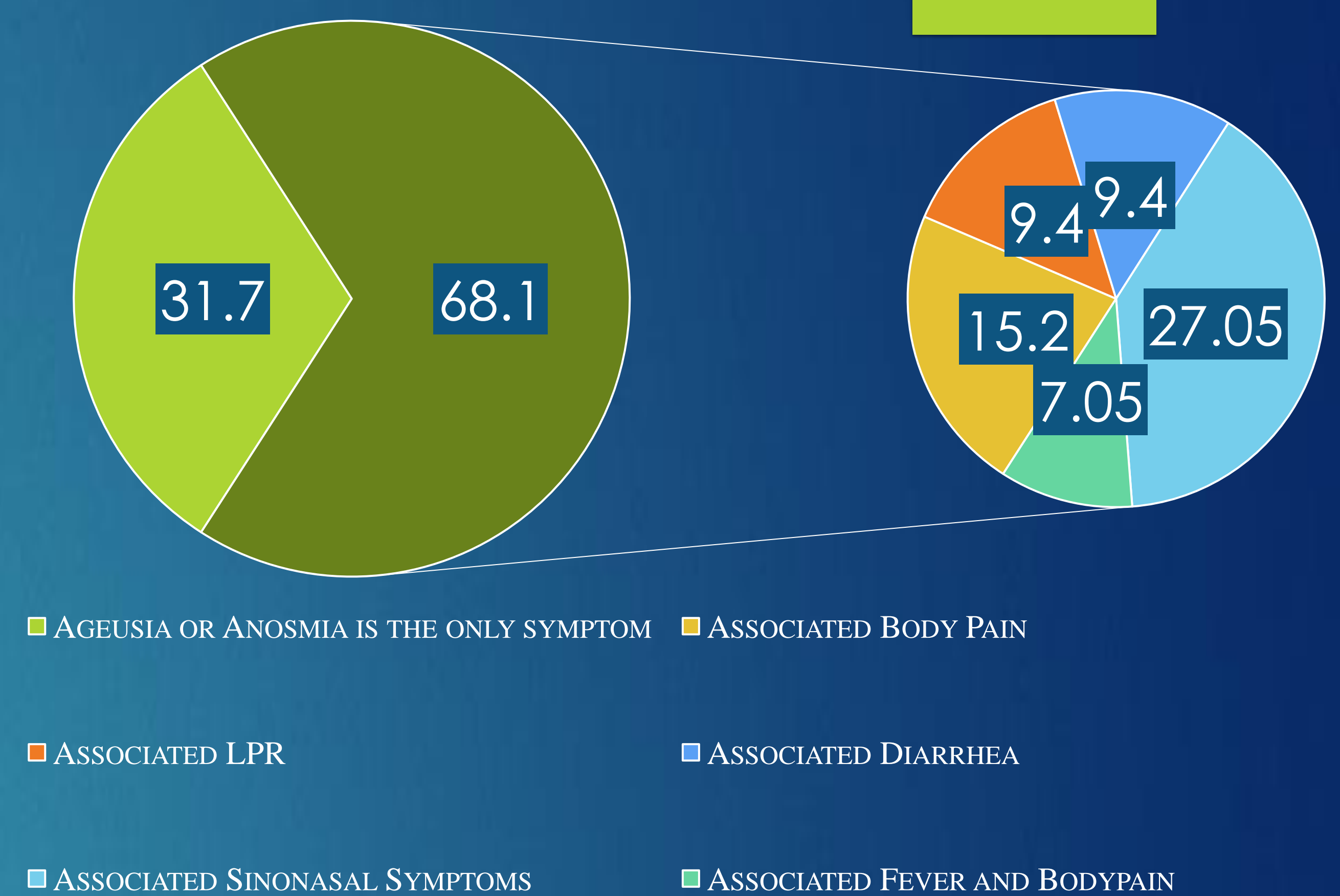
Age Group	No. of patients			Percent age of Total patients
	Sex		Total	
	Male	Female		
<20	0	1	1	1%
20-39	33	19	52	61%
40-59	22	9	31	37%
>60	1	0	1	1%
<b>Total</b>	<b>56</b>	<b>29</b>	<b>85</b>	
<b>Percentage of total cases</b>	<b>59%</b>	<b>31%</b>		

TABLE-2

Taste	Salt	Sweet	Sour	Bitter
Lost first	nil	64%	16%	20%
Regained first	70%	nil	13%	17%

FIGURE-1

## SYMPTOMS



## DISCUSSION:

This study reports an 18.6% of the incidence of ageusia which was much higher than the study conducted by Mao et al which reports an incidence of 5.6%,and the study conducted by Pranav et al reports an incidence of 4.1%. According to this study, ageusia and anosmia appear before other symptoms in 14% of patients and in general, the onset of anosmia and ageusia occurs in the early stages of the disease. This is supported by the study conducted by Vaira et al and the study conducted by Yonghyun Lee et al. This is in contrast to the study conducted by Nakagawara et al reports the onset of olfactory dysfunction and taste disorders in the later phase of the disease. The average duration of gustatory dysfunction is 9 days as per the study conducted by Vaira et al which is fairly in accordance to this study which denotes an average duration of ageusia in patients as 6 days.

## CONCLUSION:

Anosmia and Ageusia are two important symptoms of COVID 19 and usually appearing in the early stage of the disease. So, patients with these symptoms have to be picked up earlier in OP basis and tested for COVID 19 to break the chain of human transmission.

## REFERENCES:

- <http://www.eng.ucy.ac.cy/cpitr/courses/ECE471/homework/Laboratory%204%20-%20Vision.pdf>
- Vaira LA, Salzano G, Deiana G, De Riu G. Anosmia and ageusia: common findings in COVID-19 patients. The Laryngoscope. 2020 Apr 1.
- Lee Y, Min P, Lee S, Kim SW. Prevalence and duration of acute loss of smell or taste in COVID-19 patients. Journal of Korean medical science. 2020 May 11;35(18).
- Nakagawara K, Masaki K, Uwamino Y, Kabata H, Uchida S, Uno S, Asakura T, Funakoshi T, Kanzaki S, Ishii M, Hasegawa N. Acute onset olfactory/taste disorders are associated with a high viral burden in mild or asymptomatic SARS-cov-2 infections. International Journal of Infectious Diseases. 2020 Jul 26.