Original Research Paper

Volume - 13 | Issue - 06 | June - 2023 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

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TO STUDY CLINICAL PROFILE OF OTORHINOLARYNGOLOGICAL MANIFESTATIONS OF COVID-19 POSITIVE PATIENTS IN CHHATTISGARH INSTITUTE OF MEDICAL SCIENCES, BILASPUR, CHHATTISGARH

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ABSTRACT **Background:** COVID-19 is an infectious disease caused by SARS-CoV-2 virus. Most common otorhinolaryngological manifestations of COVID-19 are sore throat, anosmia, ageusia, runny nose, nasal obstruction, tonsillar hypertrophy, pharyngeal erythema. Late manifestations include hearing loss, facial palsy, sinusitis etc. **Objective:** To find out various types of otorhinolaryngological symptoms of COVID-19. **Method:** This prospective clinical study is conducted in Dept. of ENT in collaboration with Corona Unit in CIMS, Bilaspur, C.G. from 01/01/2021 to 31/12/2021. 103 COVID-19 patients who were lab diagnosed with Rapid Antigen Test/ RTPCR with ENT manifestations of age > 10 years were included in the study. **Results:** Most common ENT symptoms were sore throat (57.3%), watery nasal discharge (47.6%), loss of taste (30.1%), tonsilitis (21.4%). Least common symptoms were sinusitis (1%), SNHL (1%), facial palsy (1%). **Conclusion:** Early diagnosis of various ENT manifestations of COVID-19 such as anosmia, ageusia and SNHL can prevent permanent damage of sensory organs and prevent permanent damage of sensory organs.

KEYWORDS : COVID-19, Pandemic, ENT manifestations, Loss of smell, Loss of taste

INTRODUCTION

Novel corona virus disease 2019(COVID-19) also known as severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) was first identified in Wuhan of Hubei Province, China in December 2019[1]. It spreaded dramatically all over the world and declared pandemic by WHO on 11th March 2020[2]. Corona virus is an enveloped, non-segmented, single-stranded, positive strand RNA virus with genome size of 26 to 32 kilobases. Coronavirus contain nucleocapsid(N), membrane(M), envelope(E) and spike(S) protein which are structural proteins [3]. Glycoprotein receptors of this virus for ACE-2 is mainly present in lower respiratory tract, therefore presents mainly with lower respiratory tract symptoms [4]. SARS-CoV2 is found to be spread through droplets, aerosol, body fluids, direct contact with an infected person and fecal-oral route [5]. Incubation period of corona virus ranges from 1-14 days with average of 5-6 days, although it may extend to 24 days according to recent studies. Most common manifestations of COVID-19 are fever, cough, myalgia, headache, fatigue, diarrhea and vomiting. Most common otorhinolaryngological manifestations are sore throat, anosmia, ageusia, runny nose, nasal obstruction, tonsillar hypertrophy, pharyngeal erythema. Late manifestations include hearing loss, facial palsy, sinusitis [6].

METHODOLOGY

103 COVID-19 positive patients with ORL manifestations who presented to Corona Unit, CIMS, Bilaspur, C.G. who tested positive with Rapid Antigen Test/ RTPCR were included in the study from 01/01/2021 to 31/10/2021.

RESULTS

This clinical study is conducted in the department of ENT in collaboration with Corona Unit, Chhattisgarh Institute of Medical Sciences, Bilaspur, C.G. from 01/01/2021 to 31/12/2021. Sample size consists of 103 patients of both sexes and age more than 10 years. The results are as follows:

Symptoms

Sore Throat

Table No. 1- Patients With Sore Throat

N=103	No. of patients	Percent (%)
Yes	59	57.3
No	44	42.7
Total	103	100

In our study, we found 59(57.3%) patients presented with sore throat.

Ageusia

Table No.2- Patients With Loss Of Taste

N=103	Patients with ageusia	Percent (%)
Yes	31	30.1
No	72	69.9
Total	03	100

In our study, we found 31(30.1%) patients presented with loss of taste.

Rhinorrhea

Table No. 3- Patients With Rhinorrhea

N=103	Patients with rhinorrhea	Percent (%)
Yes	49	47.6
No	54	52.4
Total	103	100

In our study, we found 49(47.6%) patients had rhinorrhea.

Nasal Obstruction

Table No. 4- Patients With Nasal Obstruction

N=103	Patients with nasal obstruction	Percent (%)
Yes	45	43.7
No	58	56.3
Total	103	100

In our study, we found 45(43.7%) patients presented with nasal obstruction.

Anosmia

Table No.5- Patients With Anosmia

N=103	Patients with anosmia	Percent (%)
Yes	35	34
No	68	66
Total	103	100

In our study, we found loss of smell in 35(34%) patients.

Sensorineural Hearing Loss

Table No.6- Patients With Hearing Loss

N=103	Patients with Sensorineural hearing loss	Percent(%)
Yes	1	1
No	102	99
Total	103	100

Only one patient came with bilateral Sensorineural hearing loss(90db Hearing Loss). Patient developed hearing loss after 3 days of COVID-19 which has been cured completely after 6 months. Foteini et al reported patient with sudden SNHL who partially improved.[7]

Facial Palsy

Table No.7- Patients With Facial Palsy

N=103	Patients with facial palsy	Percent (%)
Yes	1	1
No	102	99
Total	103	100

Only one patient came with unilateral facial palsy (House-Brackman grade-2) who improved after taking oral steroids for 3 weeks.

Sinusitis

Table No. 8- Patients With Sinusitis

N=103	Patients with sinusitis	Percent (%)
Yes	1	1
No	102	99
Total	103	100

In our study, one patient presented with sinusitis at the later stage of COVID-19. Patient had frontal headache after 2 weeks post COVID and recovered after taking conservative treatment. El Anwar et al reported 20% of patient with chronic sinusitis [8].

DISCUSSION

COVID-19, SARS and MERS are all caused by coronaviruses. SARS & MERS cases were found to be more severe while COVID-19 cases were severe with variety of presentations [8]. Novel corona virus disease 2019(COVID-19) was first identified in Wuhan of Hubei province, China in December 2019. It was declared as pandemic by WHO on 11th march 2020. In a study reviewed by El Anwar M et al (Aug 2020) showed that most common ENT manifestations are sore throat (11.3%), smell affection (6%), nasal congestion (4.1%), nasal obstruction (3.4%), rhinorrhea (2.1%), tonsil enlargement (1.3%). In our study we found, most common ENT manifestations were sore throat (57.3%), runny nose (47.6%), nasal obstruction (43.7%), tonsilitis (21.4%), loss of taste(30.1%), loss of smell(34%). In a study done by Mohamed Zafran et al (January 2021) reported patients with COVID-19 induced SNHL, olfactory dysfunction. In our study, we found one patient with SNHL who got cured after 6 months. In our study, we also found one patient presented with unilateral facial palsy House Brackman grade-2 who after taking oral steroids for 3 weeks resolved the symptoms.

CONCLUSION

Our study concludes that early diagnosis of various ORL manifestations of COVID-19 such as anosmia, ageusia and SNHL can prevent permanent damage of sensory organs and can preserve the perception of sense of smell, taste and hearing which are necessary for an individual to live a satisfactory life without any morbidity.

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