

ENT RELATED SYMPTOMATOLOGY OF COVID-19 IN OUR INSTITUTION

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ABSTRACT

Objective: To investigate the symptoms of COVID-19 disease cases which according to published scientific literature mainly includes upper respiratory track symptoms.

Study Design: Case series study.

Place and Duration of Study: It was carried out at ENT department, Pakistan Naval Ship Shifa, Karachi, from Mar 2020 to Jun 2020.

Methodology: It was from March, 2020 to June, 2020. Patients included in study were above the age of 10 years who were able to give us the details about their symptoms, contact and recent travel history and cooperated for their nasopharyngeal swabs for COVID-19 RT PCR tests. Probability, convenient, sampling technique was used for our study. Frequencies of age, gender, clinical symptoms of patients were analyzed by using descriptive statistics of SPSS.

Results: This study included 231 patients with COVID-19 positive nasopharyngeal swabs for RT-PC, out of which 200 were males and 31 were females. Mean age is 38.23 ± 14.77 years. Among the airway symptoms, multiple symptoms like fever, cough, myalgia were seen in 84 cases (36.4%) and cough was found in 22 (9.5%) of patients. Fever with cough was seen in 21 (9.2%) of patients. 58 (25.1%) cases were asymptomatic and were carriers. History of contact was positive in 122 (52.8%) of cases.

Conclusion: COVID patients have fever, cough and myalgia as the most common symptoms and such patients should be assessed with care and as per the standard guidelines of institutions.

Keywords: COVID-19, Fever with cough, Myalgia, Symptoms of airways.

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INTRODUCTION

Severe acute respiratory syndrome corona virus 2 (SARS-COVID-19) is a novel member of RNA corona virus which is widely spread nowadays in many parts around the globe. Coronavirus disease 2019 (COVID-19) is name given by WHO to the illness caused SARS-Cov-2 which belongs to B-coronavirus 2b lineage in phylogenetic tree¹. The outbreak initially starting from province Wuhan china has created a global health crises and affected developed countries as well including ITALY, SPAIN, USA, UK and RUSSIA. On May 26, 2020, number of COVID 19 cases worldwide tested positive are 5,17,172 and the number of deaths from COVID-19 are 348,532-clinical evidence has demonstrated that this virus is transmissible from person to person. All the

symptoms found in common cold i.e. Cough, flu, rhinitis post nasal drip, throat and nasal congestion, fever and shortness of breath are also seen in patients suffering from COVID-19 disease according to various studies². However, pneumonia, multiorgan failure, severe acute respiratory syndrome and even death are seen as sequel in more severe cases of COVID-19 disease³. The proportion of population at risk includes elderly people over 60 and all those with preexisting comorbidities including diabetes, chronic respiratory disease, cardiovascular disease, renal failure and cancer. Moreover anosmia and ageusia are also mentioned in published scientific literature as among prominent symptoms in positive COVID 19 patients⁴. As the direct contact and respiratory droplets (Aerosols) are considered the main disease transmission routes and asymptomatic carriers can transmit⁵, to other persons particularly doctors. Therefore, this study aims to investigate the symptoms of COVID-19 disease cases which

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according to published scientific literature mainly includes upper respiratory track symptoms. This definitely will help ENT specialists to identify suspected cases with extreme caution and protection. Moreover, correlation of percentage of anosmia and dysgeusia found in our setup with incidence of these symptoms in published studies will be made.

METHODOLOGY

This was a case series study, carried out at Pakistan Naval Ship Shifa, Karachi, COVID-19 department from March, 2020 to June, 2020. The study was approved by Hospital Bioethics committee number ERC/2020/ENT/28. Informed written consent was taken from patients and numbering was done on SPSS. Confidentiality was maintained by hiding the all particulars from other patients and asking to fill questionnaire in isolation. Patients included in study were above the age of 10 years who were able to give us the details about their symptoms, contact and recent travel history and cooperated for their nasopharyngeal swabs for COVID-19 RT PCR tests. All the patients were admitted in isolation ward and patients were asked to fill the questionnaire (performa). The questionnaire included all necessary details like patients particulars, age, gender, symptoms, contact/travel history, contact with family members and contact numbers. All patients who refused to include in study and age <10 years were excluded. Probability, convenient, sampling technique was used for our study. Frequencies of age, gender, clinical symptoms of patients were analyzed by using descriptive statistics of SPSS-22. *p*-value was not kept as per design of study. No test of significance was applied. Mean of numerical data with standard deviation, like age was calculated and percentage of various symptoms were also calculated.

RESULTS

This study included 231 patients with COVID-19 positive nasopharyngeal swabs for RT-PCR, out of which 200 were males and 31 were females. Mean age is 38.23 ± 14.77 years. Gender and male female ratio is 6.45:1. Similarly collec-

tive data about patient's symptoms were shown in table-I.

Among the airway symptoms, multiple symptoms like fever, cough, bodyaches were seen in 84 (36.4%) cases and fever was found in 19 (8.2%) of patients. Fever with cough was seen in 21 (9.1%) of patients while headache and general body aches were found in 12 (5.2%) of cases. Shortness of breath was seen in 6 cases (2.7%). Surprisingly, Anosmia was found in only 4 (1.7%) of patients. Expectantly, 58 (25.1%) of positive COVID-19 patients were found symptoms free.

History of contact with other COVID patients was positive in 122 (52.8%) cases with 7 (3%) cases were having both history of travel and contact. Fifteen (6.5%) cases gave history of travel only. Eighty seven cases (37.7%) gave no history of travel and contact (table-II).

Table-I: Symptoms of COVID-19 positive cases (n=231).

Symptoms At Admission	Patients (n=231) (%)
No Symptoms	58 (25.1%)
Cough	22 (9.5%)
Shortness of Breath	6 (2.7%)
Cough with Fever	21 (9.1%)
Fever	19 (8.2%)
Bodyaches	12 (5.2%)
Fever, Cough, Bodyaches	84 (36.4%)
GIT Symptoms	5 (2.2%)
Loss of Smell	4 (1.7%)

Table-II: History of contact.

Yes	122 (52.8%)
No	87 (37.7%)
History of travel	15 (6.5%)
History of contact & travel	7 (3%)

DISCUSSION

Since high false negative rates have been reported in various studies with a percentage of upto 30-50% in the real COVID cases, it's high time to report the common symptoms including upper respiratory tract manifestation in COVID-19 positive cases in order to identify the suspected cases. In this way otorhinlaryngologists should be accurately informed about the common manifestation of COVID-19 positive cases which

will definitely be helpful for them to use appropriate personnel protective Equipment (PPE) for ENT examination and performing upper airway procedures. Symptoms resulting from COVID-19 cases at the prodromal phase, including fever, dry cough, and malaise, are non-specific according to one study⁷. The broad clinical appearance is not clear in initial period, as the reported symptoms range from mild to severe⁸. In January, 2020, a man of 35 years old presented to an urgent care with a 4-day history of cough and fever in USA⁹. He was first case of COVID-19 after PCR. This depicted importance of symptoms in detection of COVID-19 cases. Fever, bodyaches with cough was the most common symptom which was seen in 84 (36.4%) of patients while fever and cough were among the second and third most important symptoms found in 62 (27%) patients collectively. These results are in accordance with the meta analysis¹⁰, which clearly mentioned that fever and cough were the most commonly occurring symptoms in positive COVID-19 patients. This result of our study is also supporting the evidence by Kunhua *et al*¹¹, Huang *et al*¹², Wang *et al*¹³, and Hui *et al*¹⁴. These two symptoms were more common than other presenting complaints and various institutions developed COVID-19 screening clinic for all such patients since March 2020. In another study by Wang *et al*¹⁵. Showed fever 98.4%, fatigue 69.6% and followed by cough 59.4%. All patients with cough and fever are examined by separate team of doctors and paramedical staff in our hospital and PCR testing in suspected cases are being performed under the supervision of otolaryngologist.

Anosmia and dysgeusia astoundingly were among the less common symptoms found in COVID-19 positive cases in our study, as anosmia was seen in 4 (1.7%) of patients while data of study of Mao *et al*, 2020 depicted 5% of COVID-19 positive showing hyposmia¹⁶. Similarly a survey on olfactory and taste disorder on COVID-19 positive patients who were admitted in hospitals revealed 33.9%, at least one taste or smell disorder and 18.6% reported both of them¹⁷.

Fifty eight (25.1%) cases were asymptomatic and were included due to history of contact. This is very dangerous aspect of COVID-19 for its spread to masses and carriers are not knowing about their status. The infection spread during the incubation period for COVID-19 is a big task for controlling the disease, exclusively with the novel concerns for the potential infectious sources and the detection and isolation of close contacts¹⁸. Based on the results of our study, we interpret that this study has got potential benefits in terms of awareness regarding symptoms of upper respiratory tract in COVID-19 patients among otorhinolaryngologist and all doctors dealing with such patients. Knowledge about clinical symptoms could be of great help for otorhinolaryngologist and doctors sitting in COVID clinics in identifying suspected COVID-19 cases and in quick decision making whether patients need to be isolated in order to reduce the disease spread as such individuals can act as potential carriers.

CONCLUSION

COVID patients have fever, cough and myalgia as the most common symptoms and such patients should be assessed with care as per the standard guidelines of institutions.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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