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ENT Related Symptomatology of COVID-19 in a Tertiary Care Hospital

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ABSTRACT

Objective: Severe acute respiratory Syndrome Coronavirus 2(SARS-COVID-19) is a novel member of RNA corona virus which is widely spread nowadays in many parts around the globe. This study aims 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.

Place and Duration of Study: ENT department, Pakistan Navy Station Shifa Hospital, Karachi Pakistan, from Mar to Jun 2020.

Methodology: 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.

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(36.4%) cases 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 Coronavirus 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 tree.[1] The outbreak initially starting from province Wuhan china has created a global health crises and affected developed countries as well including ITLY, 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 form 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 studies.[2] However, pneumonia, multi organ failure, severe acute respiratory syndrome and even death are seen as sequel in more severe cases of COVID -19 disease.[3] 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 patients.[4] As the direct contact and respiratory droplets (Aersols) are considered the main disease transmission routes and asymptomatic carriers can transmit[5] to other persons particularly doctors. Therefore, this study aims to investigate the symptoms of COVID-19 disease cases which 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.

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METHODOLOGY

This was a case series study, carried out at PNS SHIFA COVID-19 department from March, 2020 to June, 2020. The study was approved by Hospital Bioethical 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.

Inclusion Criteria: 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.

Exclusion Crteria: All patients who refused to include in study and age less than 10 years were excluded.

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. 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-PC, 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 collective data about patient's symptoms were shown in Table-I.

Table-I: Symptoms Of Covid-19 Positive Cases

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%)

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(2.7%) cases. Surprisingly, Anosmnia 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. 15(6.5%) cases gave history of travel only. 87(37.7%) cases gave no history of travel and contact. This was shown in Table-II.

Table-II: History Of Contact

	n=231
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,[6] 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 otorhionlaryngogists 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 study.[7] The broad clinical appearance is not clear in initial period, as the reported symptoms range from mild to severe.[8] In January, 2020, a man of 35 years old presented to an urgent care with a 4-day history of cough and fever in USA.[9] He was first case of COVID 19 after PCR. This depicted importance of symptoms in detection of COVID19 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 analysis[10] 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 Li *et al.*,[11] Huang C *et al.*,[12] Wang W *et al.*,[13] and Hui DS *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 D *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 hyposmia.[16]

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 them.[17]

58(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 contacts.[18] 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 weather patients need to be isolated in order to reduce the disease spread as such individuals can act as potentials 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.

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Authors' Contribution

Following authors have made substantial contributions to the manuscript as under:

SA & SMAS: Data acquisition, data analysis, critical review, approval of the final version to be published.

NRB & SABG: Study design, data interpretation, drafting the manuscript, critical review, approval of the final version to be published.

MFWK & WAK: Conception, data acquisition, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

REFERENCES

1. Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. N Engl J Med 2020; 382(13): 1199-1207. https://doi.org/10.1056/ NEJMoa2001316
2. Chen N, Zhou M, Dong X, Chen N, Zhou M, Dong X, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. Lancet 2020; 395(10223): 507-513. https://doi.org/10.1016/S0140-6736(20)30211-7.
3. Guan W, Ni Z, Hu Y, Liang W, Ou C, He J, et al. Clinical characteristics of corona- virus disease 2019 in China [published online ahead of print 2020]. N Engl J Med https://doi.org/10.1056/NEJMoa2002032.
4. Lovato A, de Filippis C, Marioni G. Upper airway symptoms in coronavirus disease 2019 (COVID-19). American Journal of Otolaryngology 2020 Apr 4.
5. Bai Y, Yao L, Wei T, Tian F, Jin DY, Chen L et al. Presumed asymptomatic carrier transmission of COVID-19. Jama 2020; 323(14): 1406-1407.
6. Wang Y, Kang H, Liu X, Tong Z. Combination of RT-qPCR testing and clinical features for diagnosis of COVID-19 facilitates management of SARS-CoV-2 outbreak [published online ahead of print 2020]. J Med Virol https://doi.org/10.1002/jmv.25721
7. Wang C, Horby PW, Hayden FG, Gao GF. A novel coronavirus outbreak of global health concern. The Lancet 2020; 395(10223): 470-473
8. Adhikari SP, Meng S, Wu Y, Mao Y, Ye R, Wang Q, et al. A scoping review of 2019 Novel Coronavirus during the early outbreak period: Epidemiology, causes, clinical manifestation and diagnosis, prevention and control.
9. Holshue ML, DeBolt C, Lindquist S, Lofy KH, Wiesman J, Bruce H, et al. First case of 2019 novel coronavirus in the United States. New England Journal of Medicine 2020 Jan 31.
10. Sun P, Qie S, Liu Z, Ren J, Li K, Xi J. Clinical characteristics of hospitalized patients with SARS-CoV-2 infection: A single arm meta-analysis. J Med Virol https://doi.org/10.1002/jmv.25735.
11. Li K, Wu J, Wu F, Guo D, Chen L, Fang Z, et al. The Clinical and Chest CT Features Associated With Severe and Critical COVID-19 Pneumonia. PMC Accessed Jul 05, 2020.
12. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet 2020; 395: 497-506.

13. Wang W, Tang J, Wei F. Updated understanding of the outbreak of 2019 novel coronavirus (2019-nCoV) in Wuhan, China. Journal of medical virology 2020; 92(4): 441-447
14. Hui DS, Azhar EI, Madani TA, Ntoumi F, Kock R, Dar O, et al. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health—The latest 2019 novel coronavirus outbreak in Wuhan, China. International Journal of Infectious Diseases 2020; 91: 264-266.
15. Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, et al. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus–infected pneumonia in Wuhan, China. Jama 2020; 323(11): 1061-1069.
16. Mao L, Wang M, Chen S, He Q, Chang J, Hong C. et al-Neurological manifestation of hospitalized patients with covid -19 in Wohan, china: a retrospective case series study 2020.
17. Giacomelli A, Pezzati L, Conti F, Giacomelli A, Pezzati L, Conti F, et al. Self-reported olfactory and taste disorders in SARS-CoV-2 patients: a cross-sectional study. Clin Infect Dis. https://doi.org/10.1093/cid/ciaa330
18. Yu P, Zhu J, Zhang Z, Han Y, Huang L. A familial cluster of infection associated with the 2019 novel coronavirus indicating potential person-to-person transmission during the incubation period J Infect Dis 2020.

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