Clinical Characteristics of Mild COVID-19 Patients and Implications of Traditional Measures for Remedy

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Abstract

Background: In Bangladesh, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) had brought about assemblage of severe respiratory illness similar to that of Severe Acute Respiratory Syndrome Coronavirus and was also associated with a diverse range of symptoms. The aim of the study was to identify the clinical characteristics of mild Covid-19 patients and implications of traditional measures for remedy. *Materials and Methods*: It was a cross sectional study conducted in the Medicine Department of Combined Military Hospital (CMH), Dhaka from February to May, 2022 on 210 COVID-19 positive patients with mild symptoms between 20 and 50 years of age. *Results:* Majority of respondents (62.9%) belonged to age 50-59 years with M±SD (50.53± 7.361) and 61.4% were male. Among 210 COVID-19 positive patients, about 92 (43.8%) were asymptomatic and among remaining 118 mild symptomatic individual; runny nose (91.5%), exhaustion (93.2%), sore throat (83.0%), headache (76.2%), loss of taste and smell (66.1%), diarrhea (60.1%) was common. Moreover, fever (37.5 °C) was noted in only 15 (12.7%) individual. All positive cases (100%) consumed tea and hot water, 205 (97.6%) took lemon water, 95.2% took adequate water and 90.4% took Kalijera as traditional home remedy product. *Conclusion:* Mild COVID-19 cases may present with runny nose, exhaustion, sore throat, headache and may not need hospital admission, rather home isolation with traditional home remedy can give better comfort to mild COVID-19 patient alongside other required medications.

Keywords: COVID-19, Home remedy, Mild symptom

Introduction

The COVID-19 pandemic created a detrimental effect on health system that becomes a public health challenge for whole world including Bangladesh. Novel coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) began in Wuhan, China, in December 2019, and has since spread worldwide.[1] By now this pandemic has reached to 40,251,950 confirmed cases of COVID-19, including 1,116,131 deaths, reported to WHO. The outbreak spread globally from the Chinese city of Wuhan to more than 180 countries and territories.[2]

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COVID-19 caused by novel strain of Coronaviruses belonging to the family Coronaviridae, an enveloped positive-sense single-stranded RNA viruses. Though it is zoonotic in nature it (surprisingly) spread among humans, ultimately causing damage in respiratory, digestive, cardiac and other systems.[3] Several studies of COVID-19 has suggested that intensive physical distancing could "flatten the curve" and prevent the overloading of our health systems. To reduce the frequency of physical contact and subsequent transmission of the virus between persons, social distancing, school closings and stay-at-home measures were commonly adopted practices world-wide.[4] Around 80% of COVID-19 infections presenting as a mild respiratory illness who were otherwise healthy had been managed at home but it can take up to 14 days. Around 15% required hospital care (usually for moderate-to-severe pneumonia) and another 5% had critical illness requiring more intensive case and support.[5] Studies have shown that spectrum of mild COVID-19 cases remain fever, dry cough, dyspnea and fatigue. In more

severe cases, infections caused viral pneumonia that could lead to severe acute respiratory distress syndrome (ARDS), and, even, death.[6] Pharyngodynophy, nasal congestion, and rhinorrhea have also been described in patients with COVID-19.[7] Alternative Medical Care Department of the Directorate General of Health Services (GoB) reported that traditional herbal remedies boosts immune system, increases self-resistance and keeps in check the symptoms of COVID-19. Consuming warm water with ginger and clove extracts, black cumin seeds, honey and fruits with vitamin C recede the symptoms of COVID-19.[8] To boos-t up immunity, many COVID-19 infected individual looks for extra defense by consuming different dietary supplements and herbal remedy from a belief that it had higher safety tolerances than the standard pharmaceutical drugs. These herbal medications and home remedy may have strengthened patient's well-being.[9]

We aimed to describe the clinical characteristics of mild COVID-19 patients and implications of traditional measures for prophylactic care and self-resistance to preserve personal protection and immunity. This study will inform the community of the emergence of virus and traditional remedy of the disease.

Materials and Methods

This cross sectional study among confirmed COVID-19 cases was conducted at the Combined Military Hospital (CMH), Dhaka from February to May, 2022. A total of 210 RT PCR positive COVID-19 patients (31-59 years of age) having mild symptoms were enrolled in this study, purposively. Moderate-to-severe and critical COVID-19 patients requiring admission were excluded from this study. Data were collected employing face to face and/or telephone interviews among patients who reported to fever clinic as COVID-19 patients and were advised for home isolation. Socio-demographic and clinical data were collected and evaluated by experienced clinicians using a pretested case record sheet. Data were collected in structured questionnaire for analysis. Severity of the COVID-19 cases was assessed based on the WHO interim guidance. Ethical clearance was obtained from Ethical Review Committee (ERC) of Combined Military Hospital (CMH) Dhaka. All collected data were analyzed by using SPSS (Statistical Package for Social Science) version-25. Frequency and percentage for categorical variables, M (±SD) and Chi-square test were used among categorical variable to determine the association between outcome and independent variables. A p value less than .05 were considered as significant all through.

Results

Majority of the patients, i.e., 132 (62.9%) represented the age group of 50-59 years. The mean (M ± SD) age of the patients was 50.53 ± 7.361 years with male dominant respondents (61.4%). Majority i.e., 53 (25.2%) were having SSC level education and average monthly income was TK. 34,304.76 (SD ± 19,609.159). Among the patients, 111 (52.9%) had 5 - 6 members in their family (Table-I).

Regarding exposure history on last 14 days 146 (69.5%) had exposure history and rest 64 (30.4%) had no exposure history to contact or suspected contact (working place, grocery shop, market, public transport and used elevator) which was statistically significant (p =0.000). The frequency of exposure to COVID-19 virus on the situation of more than one minute and a distance of at least one meter were assessed where a vast majority 78 (37.1%) exposed to virus for 6-10 times, 71 (33.8%) for one to four times and only 24 (11.4%) for more than 16 times ($\chi 2$ = 22.363, p = 0.000) (Table II).

Of 210 RT-PCR confirmed individuals with COVID-19 about 92 (43.8%) had remain asymptomatic for the full duration of illness until

Table I: Distribution of respondents by demographic characteristics (n = 210)

Attributes	*n* (%)	Attributes	*n* (%)
Age of respondents (years)		**Monthly family income (taka)**	
30-39	22 (10.5)	7,000 - 20,000	30 (14.3)
40-49	56 (26.7)	21,000 - 50,000	88 (41.9)
50-59	132 (62.9)	51,000 - 1,00,000	92 (43.8)
M ± (SD)	50.53 ± 7.361	*M ± (SD)*	34304.76 ± 19609.159
Min-Max	31 - 59	Min-Max	7000 - 100000
Gender		**Occupation of the respondents**	
Male	129 (61.4)	Service	63 (30)
female	81 (38.6)	Retired	46 (21.9)
Religion		Business	20 (9.5)
Islam	206 (98.1%)	Housewife	81 (38.6)
Hindu	4 (1.9%)	**Family type**	
Others	0 (0%)	Nuclear	205 (97.6%)
Educational qualification		Joint	5 (2.4%)
Illiterate	11 (5.2)	**Number of family members**	
Primary	39 (18.6)	2 - 4	79 (37.6)
Secondary	45 (21.4)	5 - 6	111 (52.9)
SSC	53 (25.2)	7 - 10	20 (9.55)
HSC	33 (15.7)	*M ± (SD)*	4.99 ± 1.312
Graduation and above	11 (5.2)	Min-Max	2-10

they become negative. In the remaining 118 individuals; running nose (91.5%) was the most common symptom, followed by exhaustion (93.2%), sore throat (83.0%), headache (76.2%), loss of taste and smell (66.1%), diarrhea (60.1%). Fever (37.5 °C) was noted in only 15 (12.7%) individual. The detail clinical characteristics of symptomatic patients are shown in Table III.

Table II: Exposure frequency of the respondents to COVID-19 virus on last 14 days (n = 210)

Exposure frequency (Times)	COVID-19 infected n (%)	Significance
1 - 5	71 (33.8)	χ^2 = 22.363
6 - 10	78 (37.1)	
11 - 15	37 (17.6)	*p* = 0.000
≥16	24 (11.4)	
Total	**210 (100)**	

Level of significance: *p* < .05

Table III: Clinical presentations of the symptomatic individual with mild COVID -19 (n =118)

Variables	*n* (%)
Fever (>37.5 C)	15 (12.7)
Rhinorrhea **	108 (91.5) **
Cough	47 (39.8) #
Sore throat **	98 (83.0) **
Loss of smell / taste #	78 (66.1) #
Myalgia #	24 (20.3)
Diarrhea	71 (60.1) #
Exhaustion **	110 (93.2) **
Chest pain	20 (16.9)
Shortness of breath	5 (4.2) #
Shivering	2 (1.6) #
Nausea	37 (31.3)
Headache **	90 (76.2) **
Abdominal pain #	60 (50.8) #
Eye ach	10 (8.47) #

*Multiple responses. ** Constituted the most symptomatic manifestations of our Covid-19 cases at the CMH during Feb-May 2022. ## Constituted less symptoms & # constituted the least no. (%) of symptoms.

All positive cases (100%) consumed tea and hot water frequently, additionally 205 (97.6%) took lemon water, adequate water (95.2%), 190 (90.4%) took Kalijera (Table IV).

Table IV: Traditional measures adopted for remedy of COVID-19(n =210)

Variables	*n* (%)
Tea	210 (100)
Lemon water	205 (97.6)
Hot water	210 (100)
Adequate water	200 (95.2)
Ginger water	190 (90.4)
Honey	198 (94.2)
Clove	55 (26.1)
Kalijira	190 (90.4)
Turmaric water	67 (31.9)
Hot Water vapor with Menthol	180 (8.57)

Discussion

COVID-19 remains a highly transmissible contagious virus that affect people within short period of contact and appearance of clinical features that may have varied from asymptomatic, to mild, moderate or severe.

Our analysis of exposure to contact and suspected contact revealed a relatively short (30.4%) chance of infection in individuals without exposure and a high rate (69.5%) of chance of infection in case of exposed individual. And in exposure frequency to COVID-19 virus (more than one minute and a distance of at least one meter) found that, a most 78 (37.1%) exposed to virus for 6-10 times, 71 (33.8%) for one to four times and only 24 (11.4%) for more than 16 times (χ 2 = 22.363, p = 0.000). Similarly, Goldstein evidenced that increase of infection were due to lesser cohesion to exposure.[10]

In our current study, about 92 (43.8%) had remain asymptomatic and rest 108 (91.5%) patients presented with rhinorrhea followed by 110 (93.2%%) exhaustion, 98(83.0%) sore throat, headache (76.2%), loss of taste and smell (66.1%),

diarrhea (60.1%) while fever (37.5 °C) was observed only in 15 (12,7%) individual. However, Chowdhury et al. observed in their study COVID-19 patients in Bangladesh commonly presented with fever, cough, fatigue, shortness of breath, and sore throat, but symptoms like myalgia, diarrhea, skin rash, headache, abdominal pain/ cramp, nausea, vomiting, restlessness, and a higher temperature (>108° F) have a greater presentation rate.[11] Contrarily, Ahmed et al. reported fever as the dominant presenting feature (77%), followed by cough in 71 (35.5%), headache in 27 (13.5%), myalgia in 25 (12.5%), sore throat in 25 (12.5%), malaise in 15 (7.5%) and respiratory distress in 11 (5.5 %), which were similar to that of our observations though not equally distributed of these symptoms.[12]

Guan et al. Wang et al, Zangh et al. found fever and cough as a predominant feature.[13–15] Rodriguez-Morales et al. studied 656 cases where they found more fever (88.7%), cough (57.6%), dyspnea (45.6%), myalgia or fatigue (29.4%) as more prevalent symptom.[16] Similarly, in a meta-analysis by Zhu J et al. found fever (80.4%), cough (63.1%) and fatigue (46%) as most common symptoms.[17] A study on the systematic review focusing on upper airway symptoms revealed that the common symptoms of COVID-19 were fever, cough and fatigue.[17] Kim et al. revealed that fever is the least common in mild case as the initial symptom and most common initial symptom were cough (40.1%) and 39.5% presented with hyponosmia.[18] These features remain consistence with that of our study where we found only 15 (12.7%) cases who had fever.

We studied the various home remedy adopted by the asymptomatic and mild COVID-19 cases where all positive cases (100%) consumed lemon tea and hot water repeatedly and in addition 205 (97.6%) took lemon water, adequate water (95.2%), 190 (90.4%) took Kalijera, 198 (94.4%) consumed honey and inhaled hot water vapor with menthol

that relieved the patients from various symptoms. However, Azam et al. reported various data on home remedies for COVID-19 patients such as, leafy juice of Ocimum sanctum and Vitex negundo, lemon (Citrus limon) juice, sliced rhizomes of ginger (Zingiber officinale), tea, seeds of Nigella sativa, honey.[19] Home remedies used in Bangladesh (and elsewhere) can be promising, because these old age treatments can cause mitigation of COVID-19 symptoms. In Pakistan garlic, turmeric, ginger, cinnamon, black pepper and honey are also used as home remedies against COVID-19, as well.[20]

All these scenarios evidences that Covid-19 is continuing to spread virus being more asymptomatic and is mild forms. We, therefore, need to recognize these to minimize the spread of infections and its risks. Though mild cases recover within a few days of Covid-19 infection, due to the panic of COVID-19, people take all sorts home remedies along with other medications at home. Since these finding of Covid-19 is based on a single hospital (MCH), it is essential to conduct similar studies to verify by large sample with multi-center study and clinical trial requiring to assess the effects and efficacy of the components of home remedy approach, more prudently.

Conclusion

COVID-19 has become a pandemic and has disrupted the daily life and economic stability of billions of people throughout the world. Injurious stimuli of COVID -19 cause specific and non-specific manifestations of various organs. Our study analyzed that running nose was the most common symptom, followed by exhaustion, sore throat, headache, loss of taste and smell and diarrhea as the common onset symptoms of COVID-19 in our settings of CMH. Fever was less common in mild COVID-19 cases in our community. Moreover, as there is lack of any effective pharmaceutical interventions for COVID-19, traditional remedy measures can be adoption as a supportive treatment in mild cases.

References

1. Zhu N, Zhang D, Wang W, et al. China Novel Coronavirus Investigating and Research Team. A novel coronavirus from patients with pneumonia in China, 2019. N Engl J Med. 2020;382(8): 727-733.

2. Mapping the Coronavirus Outbreak Across the World, Updated: 20 October 2020, https://www. bloomberg.com/graphics/2020-coronavirus-cases -world-map/ (Accessed on 26th Feb 2020).

3. Barbosa J, Kaitis D, Freedman R, et al. Clinical outcomes of hydroxychloroquine in hospitalized patients. N Engl J Med. 2020.[Submitted for review].

4. Inglesby TV, Nuzzo JB, O'Toole T, et al. Disease mitigation measures in the control of pandemic influenza. Biosecur Bioterror. 2006;4(4):366-375.

5. Hunt M, Koziatek C. A Case of COVID-19 Pneumonia in a Young Male with Full Body Rash as a Presenting Symptom. Clin Pract Cases Emerg Med. 2020;4(2):219-221.

6. Sellevoll HB, Saeed U, Young VS, et al. Acute abdomen as an early symptom of COVID-19. Tidsskr Nor Laegeforen. 2020 Mar 31;140(7). English, Norwegian.

7. Terpos E, Ntanasis-Stathopoulos I, Elalamy I, et

al. Hematological findings and complications of COVID-19. Am J Hematol. 2020;95(7):834-847.

8. Lin LT, Hsu WC, Lin CC. Antiviral natural products and herbal medicines. J Tradit Complement Med. 2014 Jan;4(1):24-35.

9. Isere EE, Adejugbagbe AM, Oladoyin V, et al. Pre-symptomatic and asymptomatic COVID-19 cases in Nigeria amidst prevailing socio-cultural beliefs and practices: Implication for COVID-19 transmission and way forward. Arch Prev Med. 2020;5(1): 039-042.

10. Goldstein E, Lipsitch M. Temporal rise in the proportion of younger adults and older adolescents among coronavirus disease (COVID-19) cases following the introduction of physical distancing measures, Germany, March to April 2020. Euro Surveill. 2020;25(17):2000596.

11. Mohiuddin Chowdhury ATM, Karim MR, Mehedi HH, et al. Analysis of the primary presenting symptoms and hematological findings of COVID-19 patients in Bangladesh. J Infect Dev Ctries. 2021;15(2):214-223.

12. Ahmed NU, Islam MA, Kabir MA, et al. Clinico-Pathological Findings of Bangladeshi Covid 19 Patients with their Clinical Outcome: Study of A Cohort of 201 Cases. J Bangladesh Coll Phys Surg 2020; 38(Suppl):37-42.

13. Guan WJ, Ni ZY, Hu Y, et al. China Medical Treatment Expert Group for Covid-19. Clinical Characteristics of Coronavirus Disease 2019 in China. N Engl J Med. 2020;382(18):1708-1720.

14. Wang D, Hu B, Hu C, Zhu F, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China. JAMA. 2020;323(11):1061-1069.

15. Zhang JJ, Dong X, Cao YY, et al. Clinical characteristics of 140 patients infected with SARS-CoV-2 in Wuhan, China. Allergy. 2020;75(7):1730-1741

16. Rodriguez-Morales AJ, Cardona-Ospina JA, Gutiérrez-Ocampo E, et al. Latin American Network of Coronavirus Disease 2019-COVID-19 Research (LANCOVID-19). Electronic address: https://www.lancovid.org. Clinical, laboratory and imaging features of COVID-19: A systematic review and meta-analysis. Travel Med Infect Dis. 2020 Mar-Apr;34:101623.

17. Zhu J, Ji P, Pang J, et al. Clinical characteristics of 3062 COVID-19 patients: A meta-analysis. J Med Virol. 2020;92(10):1902-1914.

18. Kim GU, Kim MJ, Ra SH, et al. Clinical characteristics of asymptomatic and symptomatic patients with mild COVID-19. Clin Microbiol Infect. 2020 Jul;26(7):948.e1-948.e3.

19. Azam MN, Al Mahamud R, Hasan A, et al. Some home remedies used for treatment of COVID-19 in Bangladesh. J Med Plants Stud. 2020;8(4):27-32.

20. Rukh L, Mohammad N. The use of home remedies for covid19 in Pakistan: A review. Pre-print,2020.https://www.researchgate.net/publication/342052411_The_use_of_home_remedies_for_covid19_in_Pakistan_A_Review.