

Original Research Article

Home isolation, monitoring and follow-up as a management approach for mild to moderate COVID-19: a prospective observational study

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ABSTRACT

Background: The coronavirus disease 2019 (COVID-19) pandemic, caused by SARS-CoV-2 manifests as mild to moderate disease in about 80 per cent of the patients. Present study intends to know the clinical outcomes of treating this cohort, in home-isolation milieu.

Methods: The 171 of 210 suspected COVID-19 patients conforming to inclusion criteria were enrolled and evaluated. Patients were categorized for severity assessment for the purpose of treatment plan, monitoring and follow-up. Data pertaining to clinical profiles, age grouping along with CT chest severity scoring, laboratory data and treatment allocations and outcomes were statistically analyzed.

Results: Among 171 patients, mean age was 48.5 (± 11.9) years and males were 108 (63%). The 93 (54%) and 69 (40%) patients had moderate and mild clinical severity, respectively. The 107 (63%) had mild CT severity score and 83 (48.5%) had one or more comorbidities. Neutrophil lymphocyte ratio (NLR), C-reactive protein (CRP) and D-dimer levels were significantly higher in clinically moderate and above 45 years age groups ($p < 0.05$). Overall outcome showed one in mild and 12 in moderate group needed hospitalization and all recovered completely.

Conclusions: Home-isolation, treatment and monitoring of study cohort with mild to moderate COVID-19, helped in timely interventions and uneventful recovery of majority of the patients.

Keywords: COVID-19, SARS-CoV-2, Home-isolation, Treatment

INTRODUCTION

On March 11, 2020, world health organization (WHO) declared Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), as pandemic encompassing more than 300 million confirmed cases of COVID-19, including 5.4 million deaths globally to date.¹ It continues to devastate life and economies of many Nations around the world burdening the national health services and Medicare.

South-East Asian countries, especially India, going through the third wave of the pandemic, are struggling to provide the overburdened Medicare to the affected. Total cases from India, a major contributor of this region, reached 35 million and death toll stood at over 4.8 lakhs till date.¹ 35% of these deaths were reported in the working-age group of 45-60 years in the early phase of pandemic.² Presently, the case positivity had risen from 0.79 % on December 29, 2021 to 3.24% in the country, taking tally of active cases in India to over 6.3 lakhs.^{1,3}

The panic and anxiety associated with fatalities, lack of specific treatment and prevailing ambiguity regarding treatment approaches for COVID-19 of the first wave of the pandemic made people to opt for inpatient care and monitoring, with high-cost implications. Many health care workers (HCW), who were taking care of COVID-19 patients, were reported to have pandemic-related burnout (52.8%).^{4,5} Statistical figures indicate that 80% of COVID-19 manifests as mild to moderate disease.⁶

In this context, the present study intended to evaluate the outcomes of home isolation, monitoring and treatment along with post-isolation follow-up of patients of COVID-19 cared for in the community, which is carried during period of first wave of SARS- CoV-2 pandemic.

METHODS

Study population

Patients from various districts of Telangana, India, attending outpatient departments of Prathima institute of medical sciences, Karimnagar and Jaya hospitals, Warangal between 20th July 2020 and 12th October 2020, were screened for COVID-19. 210 patients with suggestive symptoms, with or without history of primary or secondary contact with known patient of COVID-19 were enrolled and evaluated in-person.

All the patients with suggestive symptoms of COVID-19 were subjected to nasopharyngeal swab for either RT-PCR or a rapid antigen test (RAT) for COVID-19, as per the test facility available. These patients were subjected to high resolution computerized tomography (HRCT) Chest irrespective of their nasopharyngeal swab test results, along with relevant laboratory workup.

Study approval was obtained from the Institutional Ethics committee (PIMS INSTITUTIONAL REVIEW BOARD PIMSIRB, letter No. IEC/PIMS/2020-002-10072020) prior to enrollment of the patients to the study. All the participants were explained about the study in their own language and the written consent was obtained from them.

Data acquisition and evaluation

The 171 patients who were finally included in the study were evaluated for clinical features with history of contact and travel to COVID-19 hotspots. We confined to doing routine tests of biochemistry, including CRP and D-dimer, required for treatment, risk stratifying the patients and for monitoring and follow-up. HRCT Chest was performed in all these patients for the purpose of diagnosis and severity scoring, interpreted by an experienced radiologist of the department. All these confirmed and probable patients who are registered for home isolation and treatment were reported to district medical and health officer.

Diagnostic criteria

Confirmed cases were defined as positive nasopharyngeal swab for either RT-PCR or RAT for SARS CoV-2.

Probable patients for COVID-19 are defined as those who tested negative or inconclusive, with or without history of either primary or secondary contact with a known patient of COVID-19, residence history in COVID-19 prevalent areas and at least two of the clinical and imaging features (HRCT-chest: CO-RADS (COVID-19 reporting and data system) 4 or 5).⁶⁻⁸ Patients were grouped as asymptomatic, mild or moderate as per the guidelines of clinical management protocol COVID-19, govt. of India, ministry of health and family welfare.⁹ We reinforced this grouping with imaging features following CO-RADS categories and severity scoring.^{10,11}

Patients thus enrolled were stratified as: 1. Asymptomatic, 2. mild group having mild symptoms and HRCT-chest score mild, with normal ambulatory SpO₂ (>94%), 3. Moderate group having significant symptoms including exertional dyspnea, HRCT-chest: CO-RADS 4 or 5, with moderate or severe scores and ambulatory SpO₂ normal to ≤94%. HRCT-Chest Categorization was done according to CO-RADS criteria and scoring based on the study by Pan et al.⁹⁻¹¹

Hypoxia was defined as ambulatory SpO₂ ≤94% (at room air). We opted for this threshold value keeping in mind the phenomenon of 'happy-hypoxia'.¹²

Home-isolation and treatment team

The team comprised of a doctor and staff-nurse under the supervision of the consultant physician. Patients satisfying the inclusion criteria were enrolled to the home-isolation registry along with the details of the caregiver. Caregivers were briefed regarding various aspects of COVID-19, i.e., immediate implementation of infection prevention and control (IPC) measures and regarding the 'red-flags' to identify clinical deterioration, and monitoring for adverse drug effects.⁶ Regular contact was maintained with the 'caregiver', who is the most responsible family member or friend willing to monitor the patient, prior to the treatment. The caregiver of the patient was initially educated regarding the aspects of monitoring, especially regarding the ambulatory SpO₂ and pulse rate and possible symptom deterioration and adverse drug affects. Caregivers were also counseled regarding adherence to the recommendations for home care isolation.¹³ Nurse will contact these patients telephonically once daily for a minimum period of two weeks and monitoring was intensified in patients with significant symptoms, elderly patients and patients who were not clinically stable. Patient or the caregiver was in regular communication with the home-isolation team either telephonically or through WhatsApp, as needed.¹⁴

At every phone call, above aspects were monitored and enquired from both caregiver and patient. In case of clinical deterioration patient advised to attend hospital emergency dept. triage for further plan of management.

Treatment monitoring and follow-up

COVID-19 patients, during or after two weeks of isolation, were followed for possible symptoms of dyspnea and monitoring of CRP and D-dimer levels, especially in elderly with or without comorbidities and whose initial values were high and on direct oral anticoagulants (DOAC). Liver function tests (LFT) were repeated after two weeks for those who were administered Favipiravir. This laboratory data was retrieved through WhatsApp platform to avoid in person meet. For patients who had markedly raised D-dimers (≥ 1000.0 ng/ml), even in the absence of significant symptoms, we evaluated for Venous thromboembolism (VTE) which included venous doppler of lower limbs, 2 D-echocardiography and CT-Pulmonary angiography. Patients who were symptomatic, especially complaining of increasing dyspnea and those who had adverse drug affects were advised for a brief in person examination. In the former situation we obtained Chest radiograph (CXR) (along with CRP, D-dimer) for radiological deterioration. We advised stable patients who recovered completely for follow-up visits after 1 month and later after 12 weeks.¹⁵

Statistical analysis

Descriptive statistics were used to describe patients' demographic and clinical data. Categorical variables such as age groups, gender, smoking history, clinical severity, and comorbidities etc. were presented as numbers with percentages, and continuous variables such as laboratory parameters were expressed as mean \pm Standard deviations. Proportions for categorical variables were compared using Fisher's exact test. Normality of data was assessed by Kolmogorov Smirnov test. Kruskal-Wallis H test was used to compare mean ranks of laboratory parameters in age groups, clinical severity and HRCT Chest severity groups. For parameters found to be statistically significant, Dunn post hoc test was carried out and pairwise p adjusted using Bonferroni correction.

A two-sided $p < 0.05$ was considered to be statistically significant. All statistical analyses were performed using IBM SPSS software (version 20; USA).

RESULTS

Clinical and demographic profile of the patients

During the period of study between July 20, 2020 and October 12, 2020 a total of 210 patients suspected of COVID-19 were evaluated. 39 patients were excluded from the study not conforming to the inclusion criteria. Overall, 171 patients comprising of confirmed and

probable cases were registered for the home-isolation management and follow-up (Figure 1).

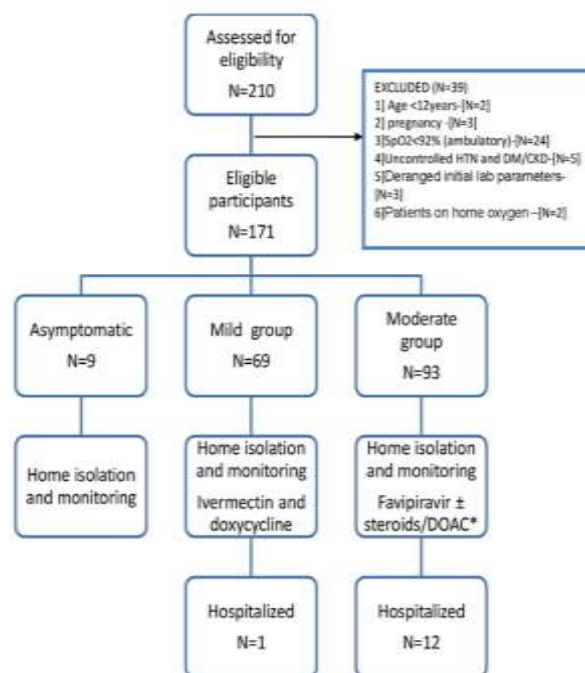


Figure 1: The study population.

Patients with $SpO_2 < 94\%$ (ambulatory) and/ or $CRP \geq 20$ mg/L were put on steroids and patients with $D\text{-Dimer} \geq 1000$ ng/ml were administered DOAC (Rivaroxaban).

The mean age was 48 with age range of 15 to 76 years. The 63% belonging to male sex and 76% affected hail from urban areas (Table 1).

Imaging features

The 171 patients enrolled for the study were evaluated for imaging features of HRCT-Chest. We accepted CO-RADS 4 or 5 categories for the inclusion criteria. They were in turn assessed for severity scoring in which 107 (62.5%) were mild, 49 (28.6%) moderate and 15 (8.7%) were of severe score. CT-chest severity score for COVID-19 when compared with markers of disease severity, viz., NLR, CRP and D-dimer showed statistical significance ($p < 0.05$) (Table 2).

Laboratory data

Kruskal-Wallis H test showed a statistically significant difference ($p < 0.05$) in NLR, CRP and D-dimer levels across age groups. These laboratory parameters were significantly higher in 45 to 60 years age ($n=69$) and above 60 years ($n=29$) patients compared to younger age groups ($n=73$). The Dunn post hoc test revealed statistically significantly higher D dimer levels in patients ≥ 60 -years than in other age groups, whereas CRP and NLR was significantly different ($p < 0.05$) between above 60 and 31 to 45 age groups only (Table 3).

Table 1: Baseline characteristics of the allocated COVID-19 patients.

Characteristics	No. of subjects, n (%)
Age group (Years)	
15-30	12 (7.0)
31-45	61 (35.7)
46-60	69 (40.3)
>60	29 (17.0)
Males	108 (63.1)
Urban	130 (76)
Smoking history	08 (4.6)
Clinical severity	
Asymptomatic	09 (5.2)
Mild	69 (40.3)
Moderate	93 (54.3)
Symptomatic* (n=162)	
Fever	122 (75.3)
Cough	111 (68.5)
Dyspnea	73 (45.1)
Chest pain	32 (19.8)
Headache	15 (9.3)
Body pains	19 (11.7)
Anosmia	11 (6.8)
Ageusia	11 (6.8)
Loose stools	02 (1.2)
Nausea and vomiting	03 (1.9)
Comorbidities, (n=83)	
Hypertension [†]	30 (36.1)
Diabetes Mellitus [†]	12 (14.5)
DM+HTN [†]	20 (24.1)
CAD/CHF	01 (1.2)
COPD	05 (6.0)
Asthma	15 (18.1)
Nasopharyngeal swab for SARS- COV2 (RT PCR/ rapid antigen) positive	59 (34.5)
HRCT chest severity scoring	
Mild	107 (62.5)
Moderate	49 (28.6)
Severe	15 (8.7)

*Multiple responses.† 2 cases of HTN and DM each, and 4 cases of DM+HTN had Asthma too. Abbreviations: DM: Diabetes mellitus, HTN: hypertension, CAD: coronary artery disease, CHF: congestive heart failure, COPD: Chronic obstructive pulmonary disease, SARS-COV2: severe acute respiratory syndrome Coronavirus2, HRCT: high resolution computerized tomography.

Table 2: Comparison of laboratory parameters (Mean (± SD) with CT severity.

Variables	CT grading mild, (n=107) (%)	CT grading moderate, (n=49) (%)	CT grading severe, (n=15) (%)	P value (significance)*
D dimer (ng/mL)	389.07 (221.7)	496.12 (354.7)	671.80 (399.6)	0.002
CRP (mg/L)	11.27 (11.2)	23.55 (24.5)	42.00 (34.4)	<0.001
NLR	2.71 (1.5)	3.63 (1.9)	4.13 (3.0)	0.002
ALC (cells/cu.mm)	1979.11 (701.1)	1769.65 (872.3)	1828 (1105.6)	0.12

*Kruskal Wallis test: The Dunn post hoc test revealed statistically significant higher D-Dimer and CRP levels in severe group than mild group only. Also, CRP and NLR levels are significantly different between mild and moderate CT severity groups (p value<0.05). Abbreviations: SD- Standard deviation, CRP-C-reactive protein, NLR- Neutrophil lymphocyte ratio and ALC-Absolute lymphocyte count.

Table 3: Comparison of clinical severity and lab parameters across age groups.

Variables	15-30 years, (n=12) (%)	31-45 years, (n=61) (%)	46-60 years, (n=69) (%)	>60 years, (n=29) (%)	P value (significance)
Clinical severity					
Asymptomatic	1 (0.6)	4 (2.3)	3 (1.8)	1 (0.6)	*>0.05
Mild	5 (2.9)	26 (15.2)	30 (17.5)	8 (4.7)	
Moderate	6 (3.5)	31 (18.1)	36 (21.1)	20 (11.7)	
Lab parameters (Mean± SD)					
D-Dimer (ng/mL)	292.2 (132.5)	405.6 (330.1)	414.2 (200.9)	661.6 (350.8)	†<0.001
CRP (mg/L)	8.6 (10.6)	16.2 (18.1)	15.8 (19.8)	27.8 (27.9)	†0.04
NLR	2.7 (1.7)	2.99 (2.0)	3.02 (1.8)	3.7 (1.7)	†0.01
ALC (cells/cu.mm)	2082.7 (959.9)	1902.3 (832.9)	1908.3 (725.1)	1834.3 (829.8)	†0.84

*Fisher Exact test. †Kruskal Wallis test: The Dunn post hoc test revealed significantly higher D dimer levels in above 60-year patients than in all other age groups, whereas CRP and NLR was significantly different between above 60 and 31 to 45 age groups, (p<0.05). Abbreviations: SD-Standard deviation, CRP-C-reactive protein, NLR-Neutrophil lymphocyte ratio, ALC-Absolute lymphocyte count

Table 4: Characteristics of patients and laboratory parameters compared across different clinical groups.

Variables	Asymptomatic, (n=09) (%)	Mild, (n=69) (%)	Moderate, (n=93) (%)	P value (significance)
Definition	RT PCR positive/ RAT positive CT chest negative	RT PCR/RAT positive or negative CT chest with CORADS 4, 5 CTSS ≤8	RT PCR/RAT positive or negative CT chest with CORADS 4, 5 CTSS ≥9	----
Sex				
Males	6 (3.5)	46 (26.7)	56 (32.5)	*0.70
Females	3 (1.7)	23 (13.3)	37 (21.5)	
Comorbidities				
No comorbidity	6 (3.5)	30 (17.4)	52 (30.1)	*0.19
1/more comorbidity	3 (1.7)	39 (22.6)	41 (23.9)	
SpO₂ (ambulatory)				
≥95%	9 (5.2)	68 (39.7)	66 (38.5)	*<0.001
92-94%	0	1 (0.6)	27 (15.7)	
Lab parameters mean (±SD)				
D-Dimer (ng/mL)	338.4 (193.11)	351.4 (203.59)	517.71 (340.78)	†<0.005
CRP (mg/L)	11.6 (14.93)	10.70 (11.16)	23.13 (24.88)	†<0.001
NLR	2.10 (0.72)	2.70 (1.4)	3.50 (2.06)	†0.008
ALC (cells/cu.mm)	1982.9 (650.9)	1896.4 (683.14)	1905.4 (885.50)	†0.95

*Fisher Exact test. †Kruskal Wallis test: Dunn Post hoc test: in all three lab parameters except ALC was Significant between mild and moderate, p<0.001. Rest pairwise comparisons not statistically significant (NS), p>0.05. Abbreviations: RAT: Rapid antigen test, CO-RADS: COVID-19 Reporting and Data System, CTSS: CT severity score, SD: Standard deviation, CRP: C-reactive protein, NLR: Neutrophil lymphocyte ratio, ALC: Absolute lymphocyte count.

When compared across clinical severity groups, all three parameters, viz., NLR, CRP and D-dimer were also significantly higher in moderate group (n=93) (p<0.05) in which the mean rank was significantly higher than that of mild group (n=69) (Table 4).

Among CT severity groups, D- dimer and CRP levels are significantly higher in severe (n=15) than mild (n=107) and NLR and CRP level had significant difference between mild and moderate (n=49) (p<0.01) (Table 2).

Treatment and follow-up

Apart from home monitoring of the patients as part of the IPC measures, we treated the patients according to the grouping made on the basis of severity assessment and as

per the standard of care and available guidelines. Asymptomatic patients were only observed for symptoms and SpO₂ variations. Mild patients were put on Ivermectin 12 mg once daily for three days along with doxycycline 100 mg 12 hourly for 5 days. Moderate group received Favipiravir 3600 mg divided dose on day 1 followed by 1600 mg divided dose for a total period of 14 days. The 56 (32.7%) patients with increasing symptoms of dyspnea and ambulatory SpO₂≤94% and or CRP≥20 mg/L were given dexamethasone 6mg once daily for ten days. Patients, whose D-dimer values are ≥1000 ng/mL, either initially or at repeated testing after 10 days, were administered rivaroxaban 10 to 15 mg daily for a minimum period of two weeks. Elderly patients, especially with comorbidities were advised rivaroxaban for more than four weeks. Overall, 22 of 171 patients

received rivaroxaban in our study. Majority (72.7%) of them were from moderate group. The above therapies adopted in the treatment of COVID-19 during the early period of the pandemic were undergoing clinical trials. This may not entirely reflect the present management of COVID-19.

Various parameters evaluated for and monitored during the period of home-isolation are shown in Table 4.

We intended to follow and monitor all these patients for a period of three months, especially those who are more symptomatic, patients on dexamethasone, rivaroxaban and whose ambulatory SpO₂ was $\leq 94\%$.

All the patients, mild or moderate COVID-19, including those who needed hospitalization and eventually recovered.

DISCUSSION

Dearth of similar studies involving the present study cohort of mild to moderate COVID-19 disease and its outcome observations led us to take cues from the severe disease.

Tracking, testing and treatment with home isolation in suitable patients early on reduces the R₀ (Basic reproduction number) and early detection, appropriate treatment regimen with monitoring may reduce the need for hospitalization and consequent burden on the health care system. Home-isolation management minimizes the exposure risk from the caregivers, asymptomatic and pre symptomatic family members, to the community and HCW.

Health education of the public through electronic and social media attenuated the panic and anxiety of contracting COVID-19 which led to many avoidable hospitalizations in both the public and private sector health facilities. Patients as in the study cohort, eligible for home-isolation management, sought inpatient care and treatment in the initial days of the pandemic overwhelming the health facility especially affecting the services to patients with severe disease and critical care.

Regarding the management approach in the study cohort in home-isolation setting, an initial chest-Xray at the time of evaluation is indicated which is cost effective compared to HRCT-chest, especially in symptomatic patients and those with comorbidities. Also, it can serve as a control if the patient deteriorates or shows the initial extent of involvement, and for follow up of the disease later in monitoring post COVID-19 sequelae like 'pulmonary fibrosis (Figure 2).¹⁶ It can also help screen any coexisting pathologies. Though we opted for HRCT chest for the inclusion criteria, we prefer the approach of the Fleischner society consensus statement regarding the role of chest imaging in COVID-19.^{17,18}

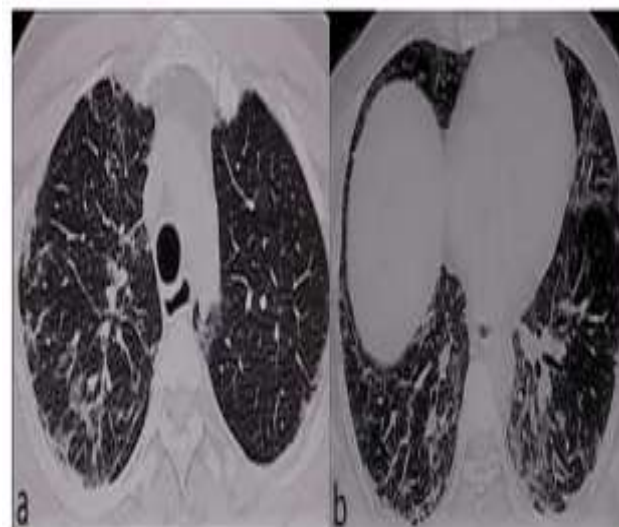


Figure 2: Follow-up CT chest of a symptomatic home-isolation patient.

Axial HRCT-chest sections at the level of the upper lobes (a) and lower lobes (b) reveal extensive interlobular septal thickening in the peripheral and subpleural regions of both lower lobes and right upper lobe associated with ground glass opacities and subpleural bands. Few small subpleural ground glass opacities are seen in the left upper lobe.

Patients of mild group were prescribed Ivermectin with doxycycline, taking cue from ongoing clinical trials.¹⁹⁻²¹

Oral drug favipiravir helped treating the moderately severe disease at home with meticulous monitoring.^{22,23} Majority tolerated drug despite mild elevation of alanine aminotransferase (ALT) (less than 3 times normal) in 2 patients and occasional bradycardia in 1 young patient, without need for discontinuation of treatment.

Patients suffering from COVID-19 pneumonia may have initial liver enzymes (ALT) elevated (less than three times the normal) which should not be a deterrent from using the anti-viral drugs, as noted in one of our patients who was successfully treated with favipiravir.²⁴

As a measure of risk-stratification to predict disease severity and detection of poor prognosis at an early stage of COVID-19, we monitored NLR along with D-dimer and CRP levels at the outset and repeated after a week to ten days in those with abnormal values, with special emphasis to D-dimer levels $\sim 0.5 - 1.0$ ug/mL.²⁵

In the study by Zhang et al of the 12 non-survivors with D-dimers ≥ 2.0 $\mu\text{g/mL}$, 7 had no severity of symptoms on admission.²⁶

Monitoring CRP and D-dimer along with NLR is recommended during treatment, especially in the elderly with comorbidities, since these parameters are markers of disease severity and mortality and facilitate timely triaging. Our study observations found support in the

meta-analysis of Huang et al.²⁷⁻³⁰ These markers are cost effective and reliable for early detection of severe disease and coagulopathy.

We could not come across relevant studies with the recommendations for either routine coagulation testing or for thromboprophylaxis in mild to moderate COVID-19 patients. Taking the cue from monitoring of these markers in severe disease, we applied the same in our cohort. We opted for a lower threshold of 1000 ng/mL for D-dimer in this context and preferred administration of rivaroxaban (10 to 15 mg) for a period of at least 4 to 12 weeks, especially in elderly with comorbidities. Lower threshold for elevated D-dimer values and monitoring during the follow-up period can guide treatment for thromboprophylaxis in outpatient setup, probably preventing events like pulmonary embolism.³¹

Dexamethasone was prescribed for 56 of 93 (60.2%) moderate group in the present study. One of these 56 patients needed hospitalization. Though recovery trial did not find any steroid benefit in mild to moderate COVID-19 with normal Oxygen levels, we administered dexamethasone in our patients with ambulatory SpO₂ ≤94% and or CRP ≥20 mg/L.³²⁻³⁵

Monitoring of our patients helped one of the 69 mild group and 12 of 93 moderate group patients to be shifted to hospitalized management. Thus, close monitoring prevented delayed hospitalization.³⁶ All these patients showed complete recovery and are being followed.

Vaccine to be available and acceptable to the millions of common people, as per the respective National guidelines of each country is a far cry.

As the quest for the most appropriate and or specific drug continues from the researcher's world over, and the ever-changing mutations with the 'variants of concern' (VOC) of the SARS-CoV-2, the only practical and cost-effective measure is the implementation of 'social-vaccine'. Latter includes: 'COVID-appropriate' behavior viz., face mask use in public places, physical distancing, and respiratory etiquette to curb the spread of infection.³⁷ Wearing a face mask in public universally would approximately save 102,795 lives.³⁸ Use of face mask would be an apt measure even in a home-isolation management, which we followed through out. This can minimize transmission of COVID-19 within families and close contacts, a source of epidemic growth.³⁹ Resurgence of COVID-19 in some of the countries recently across the world, and of late in India, with the VOC-Omicron, leading to rapid transmission, is certainly a reflection of not following these simple measures, which is an important social determinant of health.

Limitations

Our study is confined to a localized geographic area with a predominantly urban population, getting the Medicare

in private setting. The outcomes may be influenced by the level of training and educating 'home-isolation team', ability of caregivers to monitor patient, financial constraints of families involved in affording pulse oximeters and lab tests and online access for regular communication, especially in remote villages. Outcomes were not compared with that of similar cohort not adequately and systematically quarantined and monitored.

Our observations regarding CRP, D-dimer in relation to age and severity are statistically significant. But the study group is relatively small, to be projected as a recommendation for home-isolation model.

We recommend a larger, multicenter study involving patients with mild to moderately severe disease, like our cohort, to know if: 1. monitoring the minimum laboratory parameters, which are risk predictors of severe disease, would be statistically significant for such home-isolation model in clinical practice, 2. follow-up to manage late complications for timely interventions.

CONCLUSION

Home-isolation, treatment with monitoring and follow-up can be an efficient method of managing majority of the mild to moderate patients of COVID-19. It can not only identify clinical deterioration early but also the complications and deranged laboratory markers of risk predictors, enabling appropriate treatment interventions or prompt hospitalization. Hence it can be recommended as a very practical, cost-effective model, especially in view of the repeated surges of the present pandemic.

Irrespective of the causative infective agents and their VOC as in the present pandemic and in spite of the vaccination status, preventive measures like avoiding overcrowded events especially in closed spaces, wearing face masks in public and other 'infection related-appropriate- behaviors' are best and time-tested methods to follow in control of present and or future pandemics.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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