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Descriptive Analysis of Treatment Regimens used in the Management of Covid - 19 in an Urban Area During the First Six Months of 2021

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Abstract

Covid 19 is an acute viral infection affecting the main respiratory system. Treatment practices were based on technical guidance from national health authorities, WHO, and CDC Atlanta. The study was aimed at enhancing the understanding of treatment practices for Covid 19. The study was based on a descriptive analysis of records of hundred patients in an urban health facility. 54% were females. 13% received vaccination of the first dose. 24% had known exposure; 39 had a history of co-morbidities. Disease severity was classified as 'mild (59), moderate (28) and severe (12)' 76 were managed at home through video-consultation. 42 (55%) were women. 91% treated at home recovered completely. 24 were hospitalized, and 8 of them were admitted in the Covid-19 Intensive care unit (ICU). 33% recovered completely among hospitalized. Covid 19 has affected all age groups, and the median age was 43.5. Elderly and high-risk patients were prone to severe disease. 76% had no history of exposure suggesting community transmission. The diagnosis was based on the clinical status of 6 patients and the rest through RT PCR. All severe patients needed hospitalization. 77% of hospitalized recovered completely. 6% died, indicating close monitoring. Clinical outcome was dependent on disease severity. Complete recovery is possible in the majority of patients (78%). Treatment practices varied from using simple supplements to use of steroids and to anti-viral. Colchicine was prescribed to two patients because of complications Isolation and diligent contact tracing, and timely management helped in containing the spread and effective management of Covid-19.

Keywords*: Covid-19, Home treatment, recovery, Treatment practices, Treatment outcome.*

Introduction

Covid-19 is an infectious acute respiratory syndrome caused by coronavirus 2 (SARS-CoV-2). In severe cases, breathlessness, and pain in the chest were observed within about a week after the initial symptoms [1]. People with comorbidities like chronic diseases of the heart, lungs, kidneys, cancer, and diabetes and individuals with habits like smoking pose a higher risk for developing the severe disease [2]. There are several other co-morbidities that influence the outcomes of the treatment Debates continue about predilection to some factors like age, (elderly being more prone), gender (males are more affected) race, (a certain group of ethnic groups being affected more than others in the same region, e.g., Afro-Americans and Asio-Americans) [3]. In the initial stages, the 'replication of SARS-CoV-2 and in the later part, 'dysregulated immune/inflammatory responses to SARS-CoV-2' is observed that leads to tissue damage [4].

Accordingly, treatment options that reduce the load of SARS-CoV-2 are used early in the course of the disease along with anti-inflammatory drugs and symptomatic treatment [5] Immuno suppressive agents are introduced in the later stages [6].

Some patients stop treatment halfway through due to lack of understanding on the importance of continuing treatment and the need for referral.

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Some patients shop for treatment from one practitioner to another. Deaths were recorded in the number of patients. Treatment options for Covid-19 is getting updated regularly based on emerging scientific evidence and expert opinions [7].

A review of different treatment practices should be done from time to time to improve treatment outcomes, to reduce mortality and morbidity arising due to post-covid 19 complications [8].

The recommendation from such a review contributes to discussions on improving national policies.

Symptoms occur two to fourteen days after exposure to the virus. Fever, cough, and tiredness are the common symptoms; loss of smell or taste might be experienced in the early stages by some patients [9]. In addition, some patients experience shortness of breath or difficulty in breathing, muscle aches, and chills along with sore throat, runny nose, and headache and chest pain. Other symptoms like nausea, vomiting, and occasional rash on the body were seen in some patients. The symptoms range from mild to moderate or severe [10]. It is prudent to note that some patients remain asymptomatic. Two main processes are considered as pathogenesis in Covid 19. The clinical spectrum of SARS-CoV-2 infection includes asymptomatic, mild, moderate, and severe illness Accordingly, treatment options that reduce the load of SARS-CoV-2 are used early in the course of the disease and immunosuppressive and anti-inflammatory therapies are introduced in the later stages [11].

Patients infected with Covid 19 were keen to know information about the right treatment choices and method to protect their family contacts. The anxiety among patients was palpable because of the impact of infodemic arising due to uncertainty, confusion, and false rumours. Counselling was difficult as the number of cases suddenly started increasing and affected access to the health care system at all levels, particularly for oxygen therapy. Need for making patient and their family members informed about the current treatment practices and improve home treatment procedures so that the health system is not burdened on one side and the mental well-being of patients and family members is supported.

The following research questions were identified. In light of the above, a study is planned to understand what treatment practices work well for the effective management of the disease [12].

The study findings and recommendations are expected to contribute to strengthening the management of epidemic outbreaks occurring in the future. The recommendations also will help patients, providers, and people understand Covid-19 and prevent issues related to treatment.

1. What treatment practices were followed to manage Covid 19 in Delhi National Capital Region?
2. Which of the practices can be recommended for guiding practitioners?
3. What are the factors that influence treatment outcomes in management of Covid-19?

Enhance understanding on treatment practices of Covid 19 in the National Capital Region (NCR) of Delhi to contribute to management of the pandemic.

The objective of the study is to identify effective treatment practices of Covid-19 and complications from the experience of patients (including patients with risk factors) and review discharge summaries and prescriptions. To recommend improved treatment practices and managing complications of Covid-19.

Materials and Methods

“Retrospective observational analysis of Covid-19 patients detected between 01 January 2021 to 30 June 2021 (first six months of the year) in a clinic in New Delhi NCR New Delhi-patients seeking treatment both in person and through teleconsultation during the first six-months of 2021 [14]. First hundred patients who sought treatment both in person and through

tele-consultation during the first six-months of 2021 were included in the study.

Six (6) patients who did not give consent and whose records were incomplete with regard to their follow-up were excluded from the study. Eight (8) patients diagnosed with other infectious diseases, e.g., malaria, were not included in the study. 14 more patients were added to the cohort who were positive for Covid-19 to make the study population to 100.

Study Duration

Cohort of the first 100 patients registered from 01 January 2021 to 30 June 2021 (6 months).

Sampling Method

Drawing from the retrospective observational study designs, it was decided to review and analyse patient records of all patients registered in the clinic between 01 January to 30 June 2021. The sample used in the observational study comprises of the first 100 patients of the cohort.

Sample Size

The first 100 patients fitting into the inclusion criteria were the sample used for the study and analysis of data to draw inferences and conclusions.

Prescriptions and discharge summaries of the registered patients between January to June 2021 were collected, analysed, and reviewed. The data was tabulated to analyse different variables and assess the impact of confounding variables.

Numerical data and information on other variables pertaining to symptoms, diagnosis, treatment provision, clinical status and treatment outcome was entered in a data collection format using Microsoft Office Excel (Excel) software and a master spread sheet will be prepared for analysis.

The Excel format was expanded or revised depending on number of variables and numerical data extracted from patient records, i.e., prescription, discharge summary, laboratory report and other relevant documents.

For analysing the course of the disease and severity of illness, among the six, five patients died during Covid 19 and one due to post-Covid-19 complications, a verbal autopsy was conducted to elicit information from the informants of the patients. The verbal autopsy was done using an open-ended interview schedule.

Pretesting

As this is a retrospective analysis, pretesting was not considered. Data entered in the excel sheet was analysed to understand the variety of symptoms, different diagnostic tests used to confirm diagnosis and prognosis of patients under treatment, treatment outcomes and cause of death recorded in the case notes.

Collection of Data

Numerical data and information on other variables pertaining to symptoms, diagnosis, treatment provision, clinical status, and treatment outcome was entered in an Excel.

The format was expanded or revised depending on the number of variables and numerical data extracted from patient records, i.e., prescription, discharge summary, laboratory report and other relevant documents. The demographic details were tabulated disaggregating age and gender. Exposure and vaccination status were noted to discuss the factors acting on infection vulnerability.

Each patient's risk factors were analysed to assess the severity of the disease, hospitalization, and mortality. Risk factors like, age (>60years), smoking, pregnancy, obesity, neurological disorders, use of immune suppressants, under chemotherapy (cancer) or having multiple risk factors. Treatment outcome was analysed factoring five different options, i.e., antipyretics, supplements for treatment like antihistaminic, antiviral [15, 16], antihelminthic (parasiticidal), antimalarial [17] and combination of all drugs.

Some patients were provided additional treatment, e.g., Colchicine depending clinical condition, prognosis, and occurrence of

complications [18]. Conditions like persistently raised body temperature (febrile), and breathlessness with elevated inflammatory markers even after completion of the treatment regimen.

The data of patients are tabulated and the details of all patients by age and gender distribution are presented in Table 1.

Table 1. Patient information– Age, Gender Distribution and Vulnerability

	Male	**Female**	**Total**
Gender	46	54	100
Age	-	-	-
15-60 Years	4	2	6
≤15 years	28	50	78
≥60 Years	13	3	16
Vaccination	-	-	0
Vaccinated	6	7	13
Non-Vaccinated	40	47	87
Exposure	-	-	0
Exposure	8	16	24
Not Known	30	30	60
No Exposure	8	8	16
Risk Factors	-	-	0
Multiple factors	9	3	12
No Risk factors	17	30	47
Obesity	11	17	28
Pregnancy	0	2	2
Smoking	5	0	5
Co-morbidities	-	-	-
Diabetes	6	2	8
Hypertension	7	1	8
Multiple comorbidities	7	8	15
Chronic lung disease	1	3	4
Blood disorders	0	1	1
Total Comorbidities	23	16	39
No Comorbidities	23	18	41

Results

A preliminary analysis of the patients indicated that 54% were female. The Age disaggregation showed that 78% were between 16 to 60 years, 9% were above 60 years, and 7 were less than 16 years. The median age was 43.5. More females (64%) were affected in the age group of 16 to 60 years.

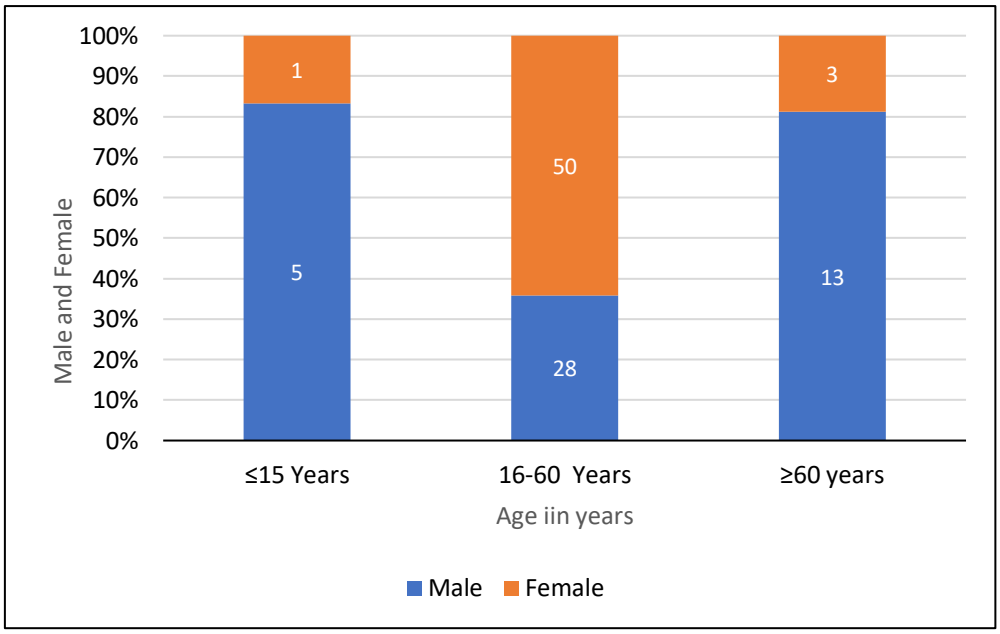

Figure 1. Age and Gender Distribution of Patients Recruited in the Study

Only 13% of the patients received vaccination, and the majority of them received only one dose. Exposure to infection was analysed and 60% were not aware of exposure; 24 revealed exposures to the known source of infection and 16 of patients had no exposure at all. The patient records showed that 47 patients did not have any risk factor and 30 (64%) were females. Multiple risk factors were recorded in 16 patients.

Co-morbidities were known to influence disease severity and information about existing comorbidities among the patients. 39 patients have history of existing co-morbidities, and of them, 23 (59%) were males. 15 patients have multiple comorbidities. 41 patients had no history of comorbidities. The age and gender distribution of the prevalence of comorbidities is presented in Figure 2.

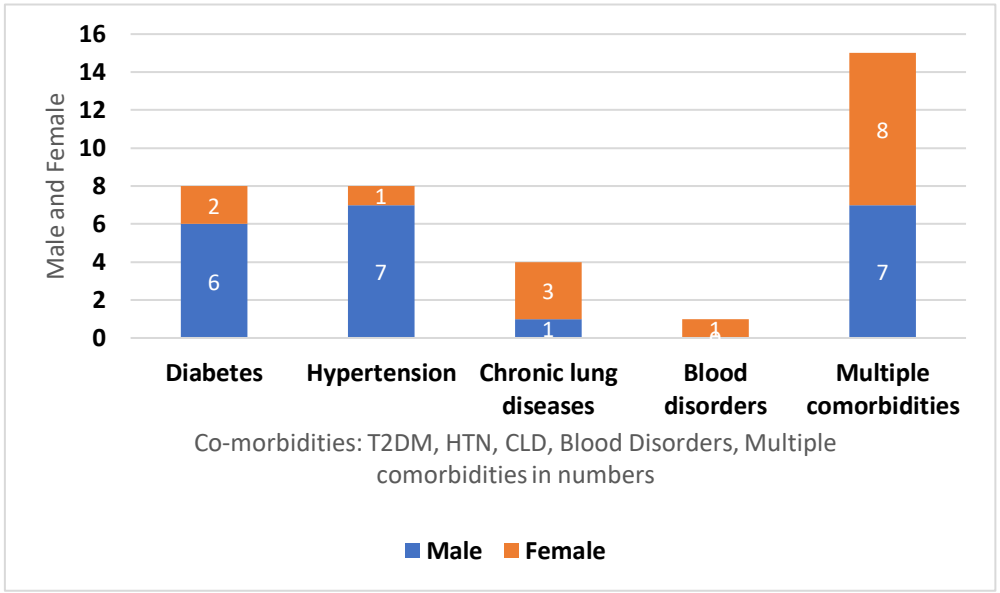

Figure 2. Age and Gender Distribution of Prevalence of Comorbidities Study Patients

Table 2. Data on Information about the Disease

Disease particulars	Male	Female	Total
Presenting Symptoms			
Fever	9	14	23
Dry Cough	3	0	3
More than one symptom	30	36	66
Others, e.g., loss of smell	1	3	4
Sore throat	2	0	2
No symptoms	1	1	2
Diagnosis			
Clinical	0	2	2
Clinical RT PCR	42	43	85
RT PCR	0	1	1
Antigen test	0	1	1
No information on diagnosis	2	0	2
Disease severity			
Asymptomatic	0	1	1
Mild	29	30	59
Moderate	12	16	28
Severe	5	7	12

Presenting symptoms of all patients were tabulated, and 66% presented with more than one symptom. Of them, 23 had only a fever. The small number of patients presented with dry cough [3], other symptoms like loss of smell or taste [4], and 2 with a sore throat. Two patients were found with no symptoms and were detected while screening contacts.

Though clinical symptoms lead to advice for self-isolation, diagnostic procedures were followed to confirm Covid-19(19). Reverse transcription polymerase chain reaction (RT PCR) was used for diagnosis. Correlation of clinical findings with RT PCR was the commonest mode followed for confirming the diagnosis in 85 patients. Two were diagnosed based on clinical symptoms, an antigen test helped in one patient, and no information was available in the case of two patients about the mode of diagnosis.

Varying disease severity was observed in different forms ‘mild, moderate and severe’ in the patients studied. No symptoms were found in one patient; 59% suffered from the mild disease. 28 patients had moderate symptoms, and 12 experienced the severe disease. Disease severity was classified as per national policy and CDC guidelines as presented in the Annexes.

Presenting symptoms, details of treatment provided, and indications for hospitalization were tabulated and presented in Table 3.

Table 3. Information about Treatment, Medication, Care, Supportive Therapy, Care and Hospitalization

Treatment particulars	Male	Female	Total
Medications			
Supplements	10	7	18
Antipyretics	7	10	17
Antipyretics+ supplements	6	10	16
Antipyretics +supplements+ Anti-viral drugs	7	8	15

Antipyretics +supplements + Anti- viral drugs +Steroids	4	4	8
Antipyretics +supplements + Anti- viral drugs +Steroids+ Colchicine	1	1	2
Steroids	1	0	1
All the above	10	14	24
Supportive therapy			
Oxygen support	5	5	10
Steam inhalation	17	23	40
Both	8	10	18
None	13	9	22
No information	3	8	11
Hospitalization or treated at home			
Patients treated at home	35	42	77
Patients hospitalized	11	12	23
Reasons for Hospitalization			
Elderly and comorbidities	2	0	2
Lack of support at home	0	1	1
More than one reason	3	6	9
Respiratory failure	5	5	10
Care			
Required Oxygen	6	9	15
Isolation	24	30	54
ICU care	4	4	8
Close monitoring - comorbidities	10	10	20
No information	2	2	4

Treatment practices provided to patients varied from using simple supplements to 18 patients, antipyretics to 17 patients, and antipyretics and supplements to 16 patients. 15 patients received in addition anti-virals [20]. Steroids were additionally provided to 8 patients. Colchicine was prescribed to two patients in addition to routine treatment, one for having continued fever even after recording negative through RT PCR and to address cytokine rush in another patient. oxygen therapy and intermittent steam inhalation were given to 18 patients.

During treatment, 76 were treated at home using self-isolation, and medications, and clinical monitoring and management were carried out through video consultation and treatment. Of them, 42 (55%) were women. Hospitalization was advised to 24 patients when the disease intensity became severe. In the cut-off levels and indications for respiratory failure in ten patients and in nine patients more than one reason was found to reasons for hospital referral. Two patients were admitted in the hospital because of the status of multiple comorbidities to prevent the severity of the disease. Eight patients were treated in the Covid-19 Intensive care unit (ICU) for different periods depending on clinical progress.

The treatment outcome was documented and analyzed. The data of treatment outcomes is presented in Table 4. Information about Treatment outcome. Patients showed no residual symptoms at the end of treatment, and thirty days following a negative result of Covid-19 were considered as completely recovered, and

78% of the patients recovered. 15 patients recovered with some symptoms. Chronic lung insufficiency was diagnosed as a complication of Covid-19 in 13 patients. Skin rashes were observed in one patient, and multi-system inflammatory syndrome (misc) in another patient.

Information about presenting symptoms, treatment details, and hospitalization details were tabulated and presented in Table 5.

Table 4. Information about Treatment Outcome

Treatment Outcome	Male	Female	Total
Complete recovery	35	43	78
Recovery with some symptoms	8	7	15
Chronic lung insufficiency	6	7	13
Skin conditions	1	0	1
Multi-system inflammatory syndrome (mis-c)	1	0	1

Table 5. Analysis of Patients showing Complete Recovery

Particulars of patients with complete recovery	Male	Female	Total
Complete recovery	35	43	78
Age	-	-	-
15-60 Years	23	35	58
<15 years	5	1	6
>60 Years	7	7	14
Multiple Comorbidities	3	0	3
Presenting symptoms	-	-	-
Dry Cough	3	0	3
Fever	8	13	21
More than one symptom	21	26	47
Other symptoms, e.g., loss of smell	2	3	5
Sore throat	2	0	2
Vaccination status	-	-	-
One dose vaccinated	5	0	5
Not vaccinated	30	37	67
Hospitalization	-	-	-
Hospitalization or treated at home	-	-	-
Patients treated at home	34	42	76
Complete recovery in patients treated at home	31	39	70
Patients hospitalized	11	13	24
Complete recovery in patients hospitalized	4	4	8
Disease severity	-	-	-
Mild symptoms	28	30	58
Moderate symptoms	8	12	20
Treatment practices	-	-	-
Antipyretics + supplements	18	12	30
Antipyretics + supplements + Anti-viral + Steroids	6	12	18
Antipyretics + supplements + Anti-viral	12	10	22

Antipyretics + supplements + Anti-viral + Steroids+ Oxygen	4	4	8

The follow-up of the cohort shows 78 patients have completely recovered at the end of 30 days since the first symptom. The analysis by age shows that 58 out of 78 (74%) were between the age group of 15-60 years, 6 were below 15 years and 14 in the age group of more than or equal to 60 years. To understand early detection or reporting correlating with completing recovery, the presenting symptoms of the patients were analysed and presented as a pie diagram in Illustration 3. Of the 78 who recovered completely, 21% presented with fever and 60% with multiple symptoms, and 6% presented with other symptoms like loss of smell and taste. All the patients presented with one or more symptoms.

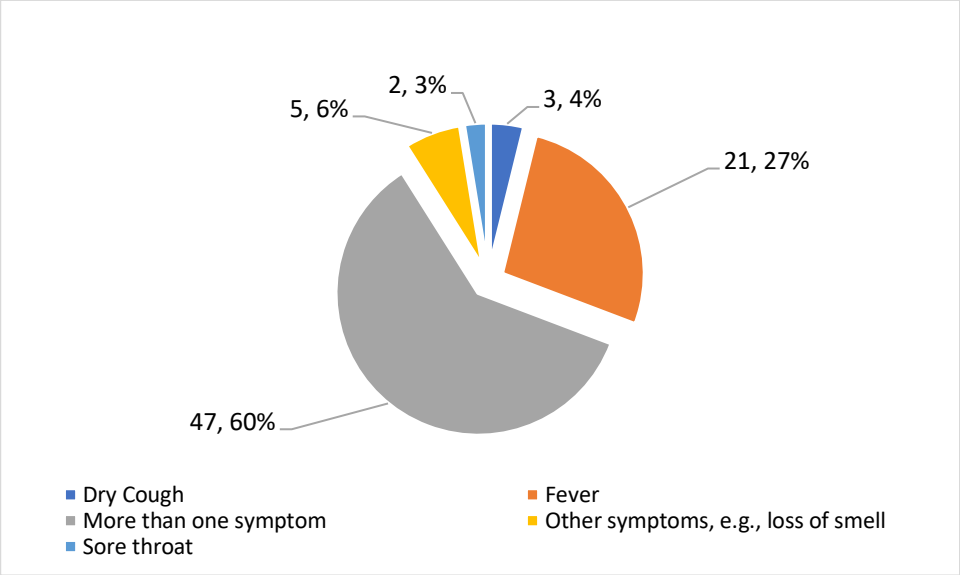

Figure 3. Presenting Symptoms of Patients Recovered Completely, n-78

Pie diagram showing 'symptoms in numbers and proportions': Dry Cough, Fever, Sore throat, more than one symptom, and other symptoms, e.g., loss of smell.

Disease severity was analyzed in terms of recovery, and the data showed that 58(28 male and 30 female) suffered from mild symptoms.20 patients (8 male and 12 female) who had moderate disease also recovered completely. The disease severity grading is according to the national policy and guidance from CDC.

The treatment practices followed for patients in the cohort who recovered completely is presented in Illustration 5. Of the 78 patients, 8 patients required oxygen therapy on one end of the spectrum and on the other end 30 patients were treated with antipyretics and supplements. Supplements include gargles with lukewarm water with salt and steam inhalations, regular breathing exercise and counselling through video once in two days.

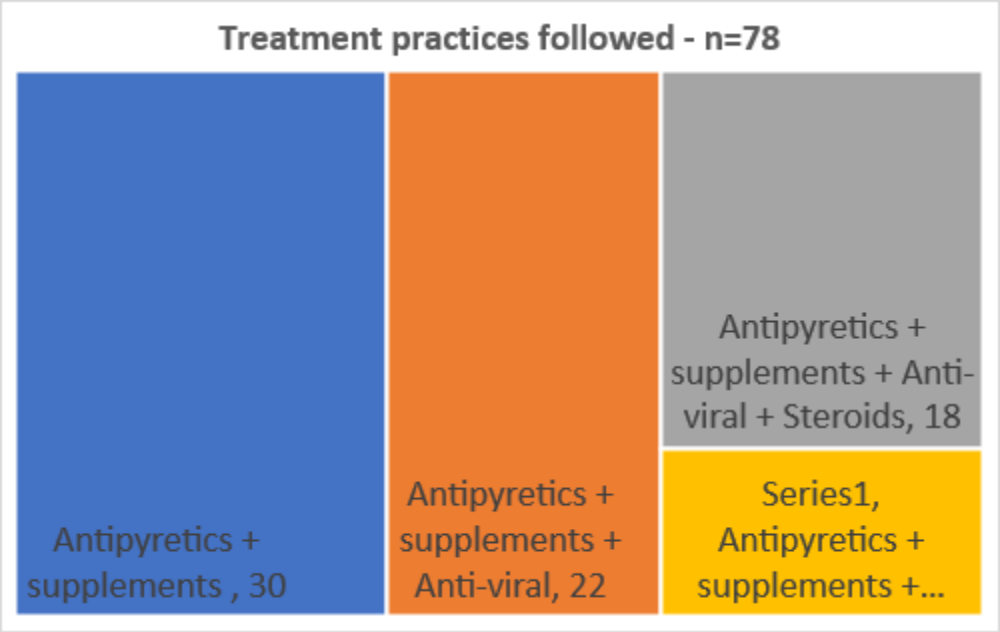

Figure 4. Treatment Provided to Patients Recovered Completely, n-78

Tree map Showing treatment practices: Antipyretics + supplements-30, Antipyretics + supplements + Antivirals – 22, , Antipyretics + supplements + Antivirals+ Steroids – 18, and Antipyretics + supplements + Antivirals+ Steroids + Oxygen – 8.

Recovery of patients was assessed by correlating with home treatment and hospitalization to know the proportion of patients recovered with post-Covid-19 complications. 91% of patients treated with a home-treatment regimen recovered completely. In the category of hospitalized patients, 33% recovered completely. Illustration 6 presents the recovery of patients.

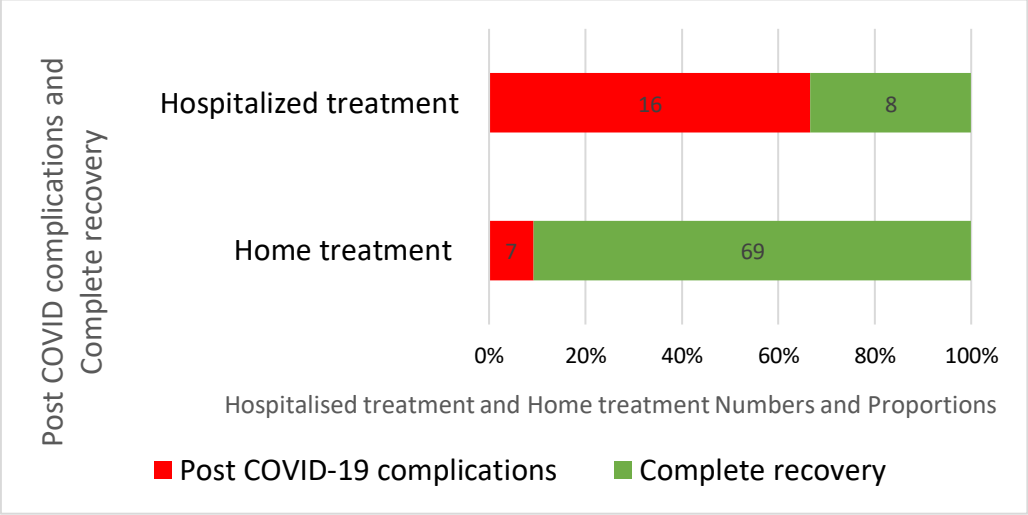

Figure-5. Recovery of Patients in Patients Treated at Home Compared to Hospitalized Patients

The most feared but inevitable outcome was observed in a small proportion of patients. Six patients died, five while undergoing treatment and one due to complications after Covid-19. Deaths were seen as twice as common in men compared to women in the study population. The details of deaths in the study are presented in Table 6.

Table 6. Deaths due to Covid-19 in the study

	Male	**Female**	**Total**
Deaths	4	2	6
Death during Covid-19	3	2	5
Post Covid-19	1	0	1

Patients with co-morbidities were known to be prone to severe cases and possibilities of death. Seven patients required oxygen; one patient was isolated. Details of care provided to patients with co-morbidities is presented in Table 7.

Table 7. Patients with Comorbidities in the Study

Close monitoring	3	1	4
ICU attention	1	1	2
Isolation	0	1	1
Required oxygen	3	4	7
No information	0	1	1

Patients with severe disease are known to need close monitoring, hospitalization, and oxygen therapy as required. In the study group, 12 Patients (5 male and 7 female) were with severe disease. Of them, 10 were hospitalized and six of them were provided intensive care and oxygen therapy as required. Death was seen in 6 (50% of patients with severity of disease). Of the 6 patients who died, 5 died while receiving treatment and one due to post-Covid-19 complications.

Discussion

The descriptive analysis of treatment regimens used in the management of Covid-19 in an urban area during the first six months of 2021 was carried out analysing information extracted from records of first hundred out of 114 patients registered between 01 January 2021 to 30 June 2021. Information about 14 patients was not considered due to lack of consent and illness due to other causes. 54% were females, and 78% were between 16-60 years and the median age was 43.5. the study belonged to the period during the beginning phase of vaccination in New Delhi and only 13% of the patients received vaccination, and most of them received only first dose. Analysis of the history of exposure showed that 24% revealed exposure, and 76 did not know the source of infection. The presence of risk factors and co-morbidities were analysed, and 39 patients have a history of existing co-morbidities, and 23 (59%) were males. 15 patients have multiple comorbidities. 41 patients had no history of comorbidities.

Presenting symptoms were multiple in 665 of cases, and two were completely asymptomatic throughout the illness. 23 had a fever as part of the illness. Two patients were found with no symptoms and were detected while screening contacts. Though clinical symptoms lead to advice for self-isolation, diagnostic procedures were followed to confirm Covid-19. Reverse transcription polymerase chain reaction (RT PCR) was used for diagnosis. Correlation of clinical findings with RT PCR was the commonest mode followed for confirming the diagnosis in 85 patients.

Disease severity was classified as per national policy, and CDC guidelines, and varying disease severity was observed in different forms ‘mild, moderate and severe’ in the patients studied. No symptoms were found in one patient; 59% suffered from the mild disease. 28 patients had moderate symptoms, and 12 experienced severe disease.

76 were treated at home using self-isolation, medications, and clinical monitoring, and management was carried out through video-consultation and treatment. Of them, 42 (55%) were women. 91% of patients treated with a home-treatment regimen recovered completely. 24 patients were hospitalized, and 8 of them were treated in the Covid-19 Intensive care unit (ICU). In the category of hospitalized patients, 33% recovered completely [21].

Treatment practices provided to patients varied from using simple supplements to 18 patients, 15 patients received in addition anti-viral [22]. Steroids were additionally provided to 8 patients. Colchicine was prescribed to a patient in addition to routine treatment, one for having continued fever even after recording negative through RT PCR and to address cytokine rush in another patient. Oxygen therapy and intermittent steam inhalation were given to 18 patients.

Complete recovery was observed in 78% of the patients. 15 patients recovered with some symptoms of them, Chronic lung insufficiency was observed in Covid-19 in 13 patients. Skin rashes were observed in one patient. Multi-system inflammatory syndrome (mis-c) in one patient, along with other complications. Six patients died, five while undergoing treatment and one due to complications after Covid-19. Deaths were seen twice as common in men compared to women in the study population. The summary of the whole study is presented in the Venn diagram as Illustration 6.

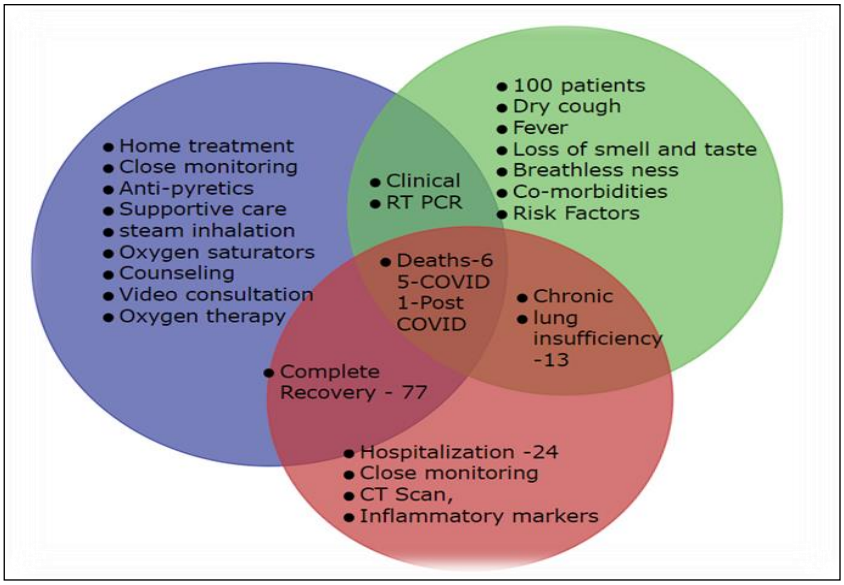

Figure 6. Summary of Descriptive Analysis of a Cohort of Covid-19 Patients

Venn diagram with data on descriptive analysis of cohorts overlapping with recovery.

Conclusion

The information from Covid-19 health programmes in India indicated that the Covid-19 'Delta' variant was the predominant causative agent during 'second wave' of the pandemic (which coincides with the study period in New Delhi). The Delta variant was known to be highly transmissible and also virulent compared to previous variants.

1. Covid 19 has affected all age groups. More patients were seen in the age group of 16-60 years (the median age was 43.5).

a. Compared to the first wave (where the elderly was affected) all age groups got infected and some experienced severe disease

2. Exposure to infection was not known to majority of patients (76%) suggesting high prevalence of disease and community transmission.

3. Vaccination was in its initial stages; only 13 patients received a single dose, and vaccination status could not be considered for analysis
4. Patients with multiple comorbidities and risk factors had severe disease.
5. The majority of the patients had one or more presenting symptoms.
a. Though two were completely free of symptoms.
b. Fever to be considered as a prominent symptom
c. Atypical symptoms like gastro-intestinal (diarrhoea, vomiting), loss of smell and taste
6. RT PCR helped in confirming the disease in most patients (85%).
a. Diagnosis in six patients was based on clinical and other tests, e.g., Antigen test
7. Disease severity was mild in 59% of the patients mostly with no risk factors and co-morbidities.
a. All severe patients needed hospitalization but 77% of hospitalized recovered completely.
b. Six percent of deaths indicate that Covid-19 patients need to be closely monitored for clinical outcomes.
8. Patients, particularly with mild disease can be treated at home completely without any complications.
9. Some patients require anti-viral and corticosteroids as part of treatment.
10. Complete recovery is possible in the majority of patients (78%)
a. 6% of the patients died, five while undergoing treatment, during one due to complications after Covid-19.

Recommendations

All age groups are prone to get infected with Covid 19 and need to take precautions to prevent the disease. RT PCR helped in confirming diagnosis and planning treatment, and patients with flu-like symptoms should be considered Covid-19 unless otherwise proved.

Home treatment is possible for patients with mild disease, and recovery is possible. Diligent contact tracing, isolation of the patients, and timely management of the disease helped in containing the spread and effective management of the disease.

Acknowledgements

I acknowledge the support from patients and their family members who have given their consent for sharing information and publishing the data. The support provided by the hospitals in providing data of all patients under treatment and those who recovered is highly appreciated.

Conflict of Interest

Author does not have any conflict of interest in conducting the study. The study did not receive funding from any organization or institution.

Ethical Considerations

Patient consent was received before including the records for descriptive analysis. No information pertaining to the individual patient was referred in the publication.

References

[1] Centers for Disease Control and Prevention, February 2021, Clinical-guidance-management-patients, with confirmed Corona Virus Disease (COVD-19), https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html.

[2] Centers for Disease Control and Prevention, 2019, Therapeutic Options for Covid-19 Patients | CDC https://www.cdc.gov/coronavirus/-ncov/hcp/therapeutic-options.html.

[3] Weiss A, Jellingsø M, Sommer MOA. Spatial and temporal dynamics of SARS-CoV-2 in Covid-19 patients: a systematic review and meta-analysis. EBio Medicine 2020; 58: 102916.

[4] Tay MZ, Poh CM, Rénia L, MacAry PA, Ng LFP. The trinity of Covid-19: immunity, inflammation, and intervention. Nat Rev Immunol 2020; 20: 363–74.

[5] Sarkar Chandan, Mondal Milon, Torequl Islam Muhammad, Martorell Miquel, Docea Anca Oana, Maroyi Alfred, Sharifi-Rad, 2020, Potential Therapeutic Options for Covid-19: Current Status, Challenges, and Future Perspectives, Frontiers in Pharmacology, Volume 11. www.frontiersin.org/article/10.3389/fphar.2020.572870.

[6] Recovery Collaborative Group, 2020, *Dexamethasone in hospitalized patients with Covid-19—preliminary report*. N Engl J Med 2020; published online July 17.

[7] Jin YH, Zhan QY, Peng ZY, et al. 2020 Sep 4, Chemoprophylaxis, diagnosis, treatments, and discharge management of Covid-19: An evidence-based clinical practice guideline (updated version). *Mil Med Res*. 2020;7(1): 41. doi:10.1186/s40779-020-00270-8.

[8] Becker, R.C., 2020, *Covid-19 treatment update: follow the scientific evidence*, J Thromb Thrombolysis 50, 43–53. https://doi.org/10.1007/s11239-020-02120-9.

[9] Centers for Disease Control and Prevention, Jan 14, 2022, Clinical Care Quick Reference for Covid-19, https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care-quick-reference.html#print.

[10] Diana Laila Ramatillah,Suri, Isnaini, April 2021, Treatment profiles and clinical outcomes of Covid-19 patients at private hospital in Jakarta, *Plos On*E, https://doi.org/10.1371/journal.pone.0250147.

[11] Lagier JC, Million M, Gautret P, et al. 2020, Outcomes of 3,737 Covid-19 patients treated with hydroxychloroquine/azithromycin and other regimens in Marseille, France: A retrospective analysis. *Travel Med Infect Dis.*; 36:101791. doi: 10.1016/j.tmaid.2020.101791.

[12] Zhao Jing, Gao Hao-Yu, Feng Zi-Yi, Wu Qi-Jun, 2020, A Retrospective Analysis of the Clinical and Epidemiological Characteristics of Covid-19 Patients in Henan Provincial People's Hospital, Zhengzhou, China, Frontiers in Medicine, Volume 7, www.frontiersin.org/article/10.3389/fmed.2020.00286.

[13] WHO Solidarity trial consortium. February 2021, Repurposed antiviral drugs for Covid-19—interim WHO Solidarity trial results. *The New England journal of Medicine*, Volume 384, No.6.

[14] Wang Y, Zhang D, Du G, et al. 2020, Remdesivir in adults with severe Covid-19: a randomised, double-blind, placebo-controlled, multicentre trial. Lancet 2020; 395: 1569–78.

[15] Beigel JH, Tomashek KM, Dodd LE, et al. Remdesivir for the treatment of Covid-19—final report. N Engl J Med 2020; 383: 1813–26.

[16] Barnby young, Tong Yan, Yee Sin Leo, November 26, 2020, the place of remdesivir in Covid-19, Lancet Infectious diseases Published Online https://doi.org/10.1016/ S1473-3099(20)30911-7.

[17] Lagier JC, Million M, Gautret P, et al. 2020, Outcomes of 3,737 Covid-19 patients treated with hydroxychloroquine/azithromycin and other regimens in Marseille, France: A retrospective analysis. *Travel Med Infect Dis.*; 36:101791. doi: 10.1016/j.tmaid.2020.101791.

[18] Manenti L, Maggiore U, Fiaccadori E, et al. February 2021Reduced mortality in Covid-19 patients treated with colchicine: Results from a retrospective, observational study. *PLoS ONE*;16(3): e0248276. Published 2021 Mar 24. doi: 10.1371/journal.pone.0248276.

[19] Zhang L, Peng Y, Zheng Q, Jiang L, Tang S, Chen P. January 2021Retrospective analysis of clinical characteristics and laboratory results of Covid-19 patients. *European Journal of Inflammation*. doi:10.1177/20587392211011919.

[20] Spinner CD, Gottlieb RL, Criner GJ, et al. 2020 Effect of remdesivir vs standard care on clinical status at 11 days in patients with moderate Covid-19: a randomized clinical trial. JAMA; 324: 1048–57.

[21] Recovery Collaborative Group., 2020; *Effect of hydroxychloroquine in hospitalized patients with Covid-19*. N Engl J Med 2020; published online October 8. https://doi.org/10·1056/NEJMoa2022926.

[22] Recovery Collaborative Group. 2020; Lopinavir–ritonavir in patients admitted to hospital with Covid-19 (Recovery): a randomised, controlled, open-label, platform trial. Lancet 396: 1345–52.