

## Case Report with Review of Literature

## Unilateral Lung Parenchymal Infiltrates with GGO & Evolving Consolidation as Presenting Feature of Sporadic COVID-19 Pneumonia in Post Pandemic Era in a Patient with Acute Febrile Respiratory Illness

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**Abstract:** Sporadic COVID-19 cases will be predicted to occur in coming few years ahead as observed in previously known influenza virus related pandemics. Herd immunity due to natural infection and hybrid immunity after COVID-19 vaccination has played crucial role in waning of this pandemic. COVID-19 pneumonia has a very 'typical' radiological presentations, observed globally; classified as GGO and consolidations involving peripheral parts of lung, bilateral disease, predominantly pleural based areas initially and involves central portions as disease process advances. Such radiological presentations are never documented in history before this pandemic, which has helped in suspecting COVID-19 illness in cases with negative microbiological results initially and such illness were classified as SARI (severe acute respiratory illness). Cases with typical radiological features for COVID-19 with RT PCR positive results were defined as case of COVID-19 illness. Both the clinical scenarios were managed with similar protocol during hospitalization. COVID-19 case burden has significantly decreased in last one year since declaration of end of pandemic by WHO and now we are in post pandemic phase. Since beginnings of pandemic, many corona virus variants were emerged with variable infectivity, virulence, pathogenesis, mortality and morbidity. As pandemic is over, cases are rarely observed with lung involvement, COVID RT PCR testing, HRCT reporting's in line with pandemic protocol and requirement of resources to treat these cases are less required and utilized today. In present case report, 32-year male, presented in outdoor unit with history of acute febrile respiratory illness with dry cough, high grade fever and chest tightness and chest discomfort of acute onset. HRCT thorax documented Pleural based, peripheral, unifocal or solitary opacity with predominant GGOs in right lower lobe with normal left lung. He is treated in indoor unit in line with community acquired pneumonia protocol and observed clinical worsening with four-fold raised in inflammatory markers. Oxygenation is worsened and raised IL-6, CRP and LDH has given clue to think towards COVID-19 etiology. Thorax swab for COVID-19 RT PCR is positive and managed according to protocol for COVID-19 illness. This is the only observed COVID-19 pneumonia case in last six months, in which; clinical-radiological patterns were typical of pandemic illness of second wave of COVID-19 illness due to delta variant. Our case is the sporadic case reported with all clinical features of pandemic illness. We have suspected COVID-19 etiology in spite of 'atypical unilateral lung involvement' due to worsened clinical features and abnormally raised inflammatory markers with poor response to standard treatment protocol for community acquired pneumonia. High index of suspicion is must, and; timely interventions with use of rational treatment including remdesivir, heparin & steroids combination during hospitalization has documented successful outcome. We recommend COVID-19 RT PCR testing in all community acquired cases nonresponding to standard guidelines to have timely diagnosis and treatment. Sporadic cases rare to occur, and they do occur for few years ahead of this end of pandemic due to virus variant, and we must quote 'rare things are not rare to happen'.

**Keywords:** COVID-19 Pneumonia, HRCT thorax, inflammatory markers, COVID-19 RT PCR, IL-6, CRP, LDH, D-Dimer.**Copyright © 2024 The Author(s):** This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

### INTRODUCTION

COVID-19 pneumonia is heterogeneous disease with variable effect on lung parenchyma, airways and vasculature leading to long term effects on lung functions. Although Lung is the primary target organ

involvement in corona virus disease-19 (COVID-19), many patients were shown pulmonary and extra pulmonary manifestations of diseases variably during all three waves, which occurred as resultant pathophysiological effects of immune activation pathway and direct virus induced lung damage [1, 2].

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COVID-19 is a coronavirus-related disease, its etiological agent was discovered in the middle of the 20th century, its epidemics-pandemics has created a health burden in the early 21st century, but evidence are coming up with its correlation with “Russian or Asiatic flu” of late 19th century [3]. Like the Influenza virus-related global pandemic in 1918 (early 20th century), a Spanish flu which has multiple waves in on-going pandemic lasted for almost 5 years, currently on-going COVID-19 pandemic has documented 3–5 waves globally lasted over a period of 3 years [3]. During the first wave, the majority of affected COVID-19 cases were having extra pulmonary involvement as compared to pulmonary, while in the second wave, the predominant pattern was pulmonary. Cardiovascular involvement was seen more often in the first wave as compared to the second wave, and the rationale for the same was not known, and medical experts believed as “Wuhan variant virus has more thrombogenic activation syndrome” as compared to Delta variant coronavirus [4]. In the first wave, extra pulmonary manifestations as pseudo acute coronary syndrome, pulmonary thromboembolism, and stroke were documented in a greater number of cases as compared to the second wave. Rapidly evolving pneumonia or “accelerated acute respiratory distress syndrome” (ARDS) was more commonly documented in the second wave, i.e., the larger number of cases were presented with rapidly deteriorating radiological and clinical laboratory parameters as increased computed tomography severity score, worsened oxygenation, increased inflammatory markers like CRP [4-7], LDH [8-11], Ferritin [12-15], IL-6 [16-21] and D-Dimer [22-26].

## CASE SUMMARY

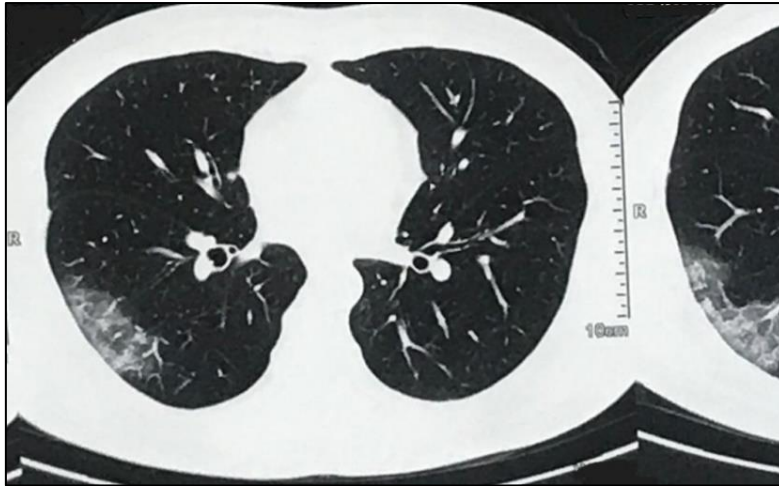
32-year-old, male, general physician/family physician (Ayurvedic consultant) admitted with complaints of cough, fever and shortness of breath of recent onset. He had taken oral antibiotics and antipyretics with cough suppressants for similar complaints. His illness worsened with high grade fever and increases cough with chest discomfort and shortness of breath increased with grade III. His family members brought to our center for further treatment. His relatives

brought patient to our center with HRCT thorax which has showed peripheral pleural based consolidation with GGOs and limiting sign positive. Consolidation is unilateral, typical peripheral and subpleural and pleural based with GGOs with consolidation.

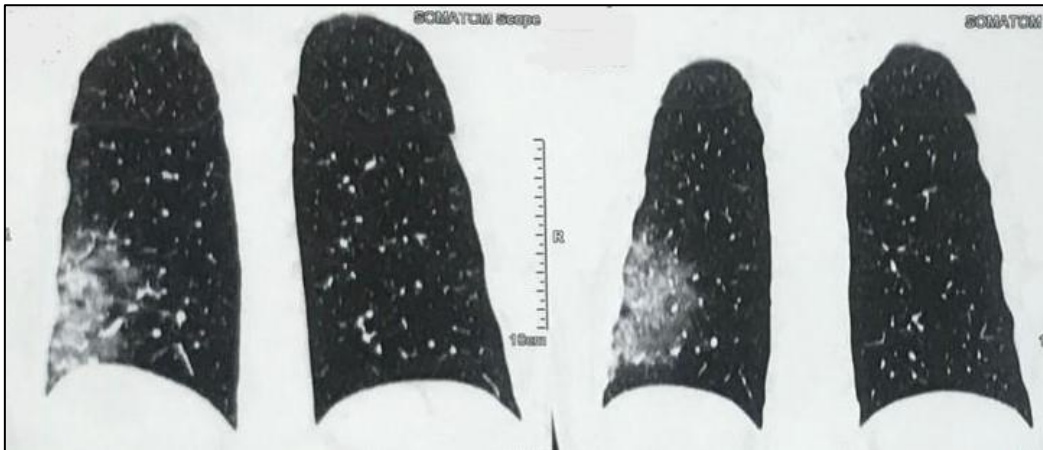
HRCT findings are: [Image 1-3]

1. Pleural based, peripheral, unifocal or solitary opacity with predominant GGOs in right lower lobe
2. Peripheral, pleural based opacity with GGO and consolidation with line of demarcation between normal and abnormal lung in lower lobe right lung
3. Pleural based consolidation with line of demarcation in right lower lobe
4. Pleural based consolidation in right lower lobe with lines and parenchymal bands with normal left lung
5. Left lung parenchyma normal with normal mediastinal structures.
6. Limiting sign positive: Line of demarcation between normal or lucent lung and abnormal or opaque lung parenchyma is called as limiting sign. Limiting sign can be seen in lung parenchymal abnormalities like GGOs and consolidations. Limiting sign radiological marker which indicates pathological process has been controlled by host's immune mechanisms and ongoing immune system response has curtailed spread of diseases. Limiting sign has been very characteristically and frequently reported in COVID-19 Pneumonia, although unilateral disease is rarely reported.

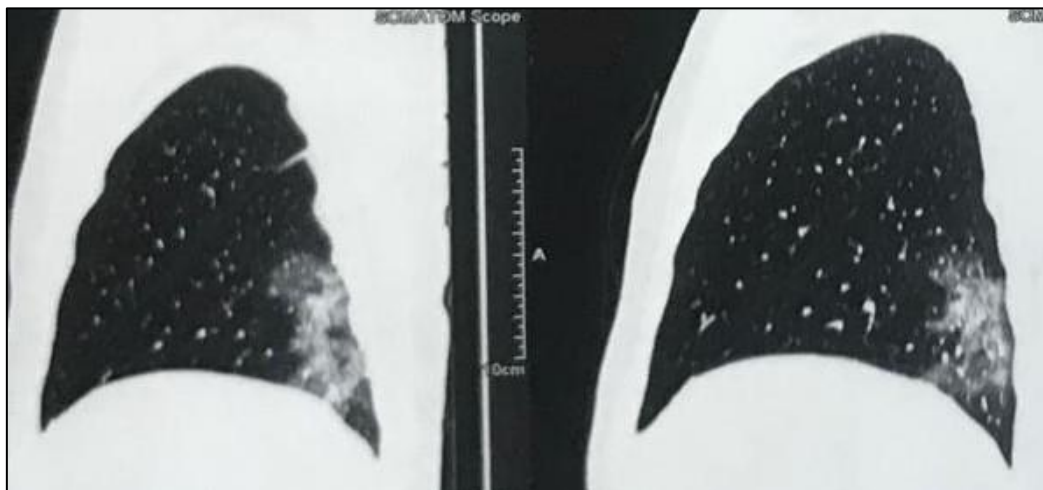
We have documented clinical examination findings as increased respiratory rate to 24 breaths per minute, heart rate 130 per minute, blood pressure 150/100 mm hg and oxygen saturation as 93% at room air and 96% with oxygen support with nasal canula @ 4 liters per minute. His respiratory system examination revealed vesicular breath sounds in bilateral lung fields with adventitious sounds as bilateral crepitations heard over right lower axillary and infrascapular area. Other systemic examinations were normal.



**Image 1: HRCT thorax showing pleural based, peripheral, unifocal or solitary opacity with predominant GGOs in right lower lobe**



**Image 2: HRCT thorax showing peripheral, pleural based opacity with GGO and consolidation with line of demarcation between normal and abnormal lung in lower lobe right lung**



**Image 3: HRCT thorax showing pleural based consolidation with line of demarcation in right lower lobe**

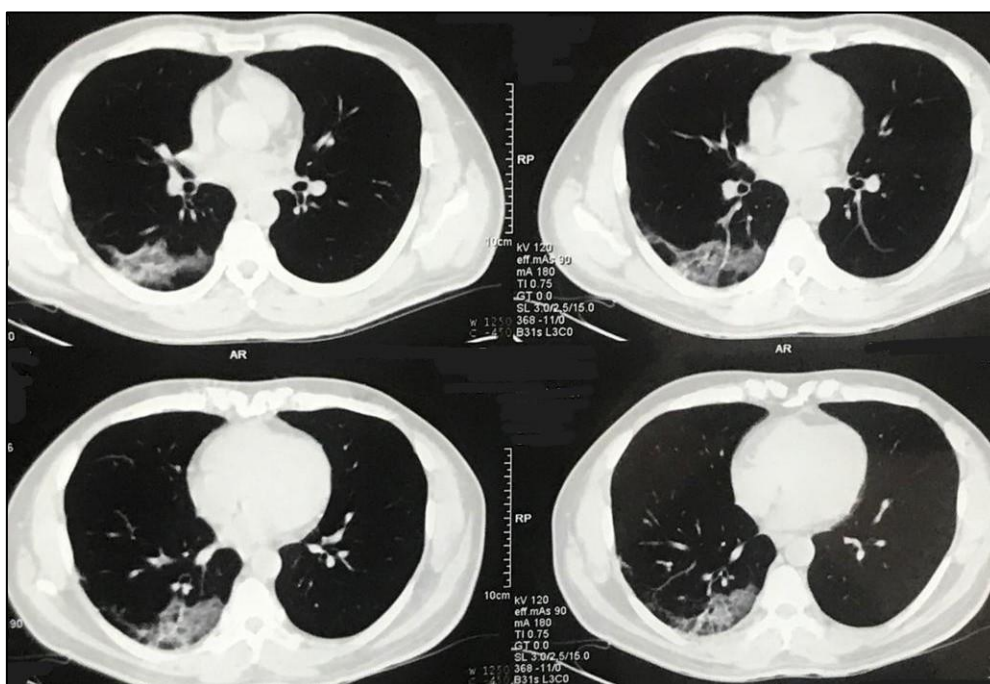
Laboratory parameters during hospitalization at entry point as Haemoglobin 14.5 gm%, total white blood cells 6800/mm<sup>3</sup>, Polymorphs 70%, Platelet count as 134000/uL, CRP-156 mg/L (0-6 mg/L), random blood sugar level-136 mg% HbA1C 5.59 %, LDH 1278 IU/L

(70-470 IU/L). Serum biochemistry examinations for liver and kidney functions were normal. As pandemic was over with no history of COVID-19 cases in last few months, we have offered antibiotics as per community acquire pneumonia protocol as piperacillin with

tazobactam 4.5-gram three times infusion with supportive care and oxygen supplementation in indoor unit. His fever was persistent and with increased frequency and duration with increase in toxemia. Laboratory parameters were reassessed after 72 hours and observed increase in CRP-224 mg/L (0-6 mg/L) LDH 1456 IU/L (70-470 IU/L) and other inflammatory markers such as ferritin 1432 ng/ml (5-250 ng/ml in males), IL-6 as 306 pg/ml (0.00-7.00 pg/ml), D-dimer as 1294 ng/ml (<500 ng/ml). Due to surge in inflammatory markers with worsening of general health, we have sent throat swab for COVID-19 RT PCR. He was tested COVID-19 RT PCR positive and hospitalized in

respiratory intensive care unit. Repeat HRCT thorax was done to assess radiological worsening and shown evolved type of pneumonia.

HRCT thorax showed consolidation with parenchymal bands and lines with no GGOs. There was typical pleural based consolidation in right lower lobe with lines and parenchymal bands with normal left lung with limiting sign positive. This follow up HRCT was characteristically called as evolved type of COVID-19 pneumonia due to switch from GGO to consolidation in lung parenchymal abnormality. [Image 4]



**Image 4: HRCT thorax showing pleural based consolidation in right lower lobe with lines and parenchymal bands with normal left lung**

He was treated in Intensive care unit with oxygen supplementation with nasal canula, intravenous antibiotics meropenem three times and teicoplanin daily infusions, injection methylprednisolone three times, Remdesivir injection, low molecular weight heparin with short acting regular insulin as and when required according to blood sugar level. His clinical stability documented after three days of treatment with resolution of fever, suppression of cough and decrease in chest discomfort with significant amount of decrease in shortness of breath. He was discharged on oral medicines after 10 days of medical treatment in hospitalization, six days in intensive care unit and four days in indoor unit. His lung functions assessment done at three months of discharge from hospital, which has showed restrictive lung functions in spirometry analysis and due to minimal symptoms of breathlessness; we have offered him pulmonary rehabilitation and breathing exercises for three months. His respiratory symptoms were improved significantly after three months with normal lung functions in spirometry tests.

## DISCUSSION

COVID-19 pandemic is over now and we are in great peace of relief after three years. This pandemic has observed significant impact on quality of life globally and the put unforgettable imprints on history of mankind. Reason for more havoc in this pandemic was less studied virus by medical scientists regarding its pathophysiology, available treatment options and lack of effective vaccine to tackle this dragon. Immune dysregulation has documented during course of active viremia, during recovery of viral illness and after post viral phase. Immune dysregulation occurs in 'selected group' of cases irrespective of disease severity and vaccination status and observed in cases with negligible illness to advanced one mandates further research [27-28]. HCQ was tried initially for prophylaxis treatment of COVID-19 due to its anti-inflammatory properties but has not shown any dramatic results. WHO has removed HCQ from the treatment plan after many trial results with disappointing outcomes. HCQ is a drug with multiple beneficial pleiotropic effects such as immunomodulatory



effects which regulates immunological responses that inhibit dysregulated immune system. Revisiting this old drug with 'versatile effects' can be used as treatment option for short time as frontline molecule for Long covid when no definitive options are available after consideration of risk benefit ratio which is a cost-effective treatment option [27]. L-Arginine is amino acid with multiple beneficial effects such as immunomodulatory effects which will regulates immunological response in inhibit dysregulated immune system additional to its universally known antioxidant, vasodilatory and regenerative and cellular proliferation effects on immune cells. These Immunomodulatory and or diseases modifying effects of L-Arginine makes it the future candidate with 'game changer' role for management of Long covid resulting from immune dysregulation as a core pathophysiologic pathway of this Dragon Pandemic [28].

Infodemic' is a pandemic of misinformation spread in a pandemic manner regarding health issues of global concern. Globally, Infodemic is rapidly rising and more adverse outcomes are observed in social, economic and family lives. Infodemic is reported first time during SARS in 2003 & now during evolution of COVID-19 pandemic in 2020. Infodemic is more rapidly spreading pandemic than any communicable disease due to its ultrafast method of transmission by means of electronic & social media in the form of print or digital platform. Here, in Infodemic, the culprit is 'misinformation' spread without any scientific evidence regarding health issues of global concern. During COVID-19 pandemic infodemic evolved parallel with actual natural viral disaster and documented comparable effects on mankind globally [29].

Immune dysregulation is known to occur after natural COVID-19. Altered homeostasis between Th1 and Th2 interplay is a real issue of concern. Immune dysfunction as Th1 and Th2 dysregulation is usually restored after other respiratory viral infections by our own reboot system as in the "Tomorrow never dies" situation [30].

Composite index is combination clinical, radiological and laboratory inflammatory marker assessment. Combination of any two abnormalities were observed crucial role in early suspicion, diagnosis, monitoring, and recognition of complications, management and disposition of patients. Composite index rather than single biomarkers may provide more reliable information. Availability and cost issues cannot be ignored. It would be impossible for clinicians to consolidate and critically analyse the enormous data that is continuously added to the COVID-19 literature to extract practically useful information for the benefit of patients. Still, as of now Composite index should be considered as 'point of care test' to honour successful treatment outcome and prevent mortality and morbidity due to this "Dragon Pandemic" [31, 32].

Now the robust data is available for role of various inflammatory markers in initial assessment of cases which are associated with direct or indirect virus-related lung injury. Apart from lung involvement, proportionate number of cases were shown systemic manifestations due to activation of inflammatory pathway and inflammatory surge resulting in to pulmonary and extra pulmonary effects which have significant impact on final outcome. All these effects can be easily picked up by timely analysis of inflammatory markers. Now these markers are also called as 'inflammatory biomarkers.' Various inflammatory markers such as CRP, Ferritin, LDH, D-dimer and IL-6 were exuberantly used during workup of COVID-19 cases worldwide and reported their valuable role in initial assessment, predicting severity, guiding or triaging hospitalization, predicting need of interventions during hospitalization, analysing final outcome, predicting post recovery outcome and possibility of long covid manifestations [4-26].

Dengue-COVID-19 overlap is clinical syndrome with overlapping clinical and laboratory workup of both the illnesses. High index of suspicion is must in all covid cases in tropical settings where dengue is endemic; and all cases with leukopenia and thrombocytopenia with fever should be screened for dengue serology. False positive dengue serology or dengue antigen cross-reactivity is known to occur in underlying COVID-19 illness, and have impact on clinical outcome as it will result in delay in covid appropriate treatment initiation and many cases require intensive care unit treatment due to progressed covid pneumonia. Covid-19 and Dengue antigenic cross-reactivity has significant association with lung fibrosis as a resultant pathophysiological effect of the immune activation pathway; and these cases required longer oxygen supplementation and anti-fibrotics in follow up. 'Dengue-COVID-19 overlap' is very frequently documented in tropical settings and disease of concern in critical care settings; as the natural trend of this entity is different and has an impact on clinical outcome if diagnosis is delayed. Both diseases may behave like 'two sides of the same coin', and rational for coexistent pathology were still undetermined [33-37].

TB and COVID-19 are rare combinations and always suspect in tropical countries like India where the burden of TB is high, and in the pandemic era, all lung infiltrates should be screened for COVID-19 lung involvement [38]. Neurovascular complications such as stroke, venous thrombosis, encephalopathy, and vasculitis is documented in various studies. Authors have documented, embolic stroke in this case in COVID-19 secondary to hypercoagulability and cardiomyopathy [39]. Authors have reported Dyselectrolytemia as result of pulmonary involvement in COVID-19 disease is reason for recurrent syncope. Although syncope is a vague neurological manifestation of many neurological and non-neurological illnesses, it is well documented in

viral illnesses such as flu and COVID; recurrent syncopal episodes need further workup [40].

Radiological phenotypes are radiological patterns or observable characteristics of COVID-19 pneumonia. Robust data is available regarding role of HRCT in COVID-19 pneumonia and we have evaluated role of radiological phenotypes in assessing severity, predicting response to therapy and final outcome in COVID-19 pneumonia. Radiological patterns or phenotypes have documented important role in assessing disease severity in COVID-19 pneumonia. Easy to treat and Difficult to treat phenotypes help in triaging the cases at entry point in correlation with clinical and laboratory inflammatory markers analysis. Phenotypic categorization is simple, sensitive and guided during treatment planning in indoor units. Presence or absence of GGOs, consolidations and crazy paving with necrosis were key radiological markers in categorizing these phenotypes. Radiological phenotyping should be correlated with clinical and laboratory parameters for accurate analysis of severity assessment, duration illness prediction and inflammatory markers workup. Phenotyping will also help in monitoring of COVID-19 pneumonia cases and guide for necessary timely interventions in indoor units to have successful treatment outcome. Post covid fibrosis is reversible and should be labelled as sequela due to near total reversible nature [41-45]. Radiological CT severity phenotypic categorization is a simple, sensitive and more widely studied and universally accepted classification system. Limitation of this method is its 'static and only' radiological assessment criteria and not 'dynamic and clinical and laboratory parameters' included 'composite index' criteria which is temporal assessment over a period of time as disease process evolves and not a single point assessment. Radiological CT severity phenotypes will predict disease severity as per the anatomical extent of disease and this actually either overestimate in severe category and underestimates in mild category. Thus, quote 'one size fit to all' will not suit conventional CT severity scoring tools and phenotypes [45].

Coronavirus disease 2019 (COVID-19) is the first coronavirus-related global pandemic caused by a novel severe acute respiratory syndrome coronavirus-2, and rapid evolution of the pandemic has resulted in fast-track developments in antivirals, medical management, and vaccination for use to prevent morbidity and mortality. As of today, different institutional treatment protocols and respective national guidelines have been evolved worldwide with team of medical experts and recommended for combinations of antiviral, antibiotics, steroids, and anticoagulants with variable outcomes. Medical evidence suggests that the beneficial role of combo therapy as combination of antiviral, anticoagulants, and steroids has shown mortality and morbidity benefit across the globe. Robust data are available regarding the usefulness of Remdesivir in COVID-19 pneumonia with variable efficacy and its use

has been documented with shortened hospital stay without mortality benefit. Remdesivir led to a shorter median time from randomization to recovery (10 days, vs. 15 days with placebo) and may have reduced the time to hospital discharge (12 days vs. 17 days) but did not show a mortality benefit [46, 47].

Vaccination is one of the most effective interventions to substantially reduce severe disease and death due to SARS-CoV-2 infection. To date, treatments for COVID-19 are mainly targeted symptomatic treatment and supportive therapy. Currently, one of the most effective strategies for mitigating COVID-19 pandemic is global vaccination that can create an immune barrier among population to attenuate the speed and scope of SARS-CoV-2 transmission. In this systematic review and meta-analysis of 18 peer-reviewed studies, which included nearly 7 million individuals, we found evidence of waning immunity against SARS-CoV-2 infection from a high of 83% at one month to 22% at five months or longer after being fully vaccinated. Similar trends were observed for symptomatic COVID-19. VE against SARS-CoV-2 infection declined more rapidly in individuals  $\geq$  age 65 years but was less than 50% in all age groups by month five [48]. Few cases received vaccine before second wave; and those received covid vaccine were required intensive care unit hospitalizations as 'breakthrough infections' with more virulent delta variant. That was real turnout and aversion to vaccines from the community and majority were nodding for vaccination. Few cases received covid vaccine developed minor allergic reactions and some documented major adverse events. Reversible rheumatological disease without life threatening emergencies were documented after covid vaccination [49, 50].

Pulmonary functions abnormality in post-COVID-19 pneumonia cases has been documented and should be assessed cautiously to have successful treatment outcome. Spirometry is cost-effective, non-invasive, easily available, sensitive tool for assessment lung function in post COVID care setting and it will help management of these cases by assessing response to treatment. Restrictive lung disease is the predominant lung function impairment in post-COVID-19 recovered lung pneumonia cases. Age above 50 years, male gender, DM, High CT severity, longer duration of illness, proper timing of initiation of BIPAP/NIV therapy, has documented significant impact on post-COVID lung functions at 12 weeks assessment. All post-COVID cases need lung functions assessment by spirometry to predict the course of underlying lung pathology and targeting interventions accordingly [51, 52].

Antifibrotics were exuberantly used to treat post covid lung complications. Lung is the primary target organ in COVID-19 disease with diverse clinical and radiological presentations and outcome. It has caused minimal to moderate lung disease in some patients and

in some cases caused deadly acute respiratory distress syndrome (ARDS). COVID-19 disease caused lung damage by direct virus induced alveolar damage, cytokine induced alveolar and vascular damage and microvascular thrombosis resulting into acute hypoxic respiratory failure. COVID-19 pneumonia evolved over period of three weeks in cases with ARDS as natural course of illness. Usually, ARDS resolves by fibrosis or resolution as final outcome. Similarly, in COVID-19 recovered cases of advanced disease or those suffering from ARDS are having post covid lung disease. Lung fibrosis is final radiological outcome of COVID-19 pneumonia documented in proportionately majority of cases. Post COVID lung fibrosis is considered as worrisome radiological complication observed during early phase of pandemic. Antifibrotics such as Nintedanib and Pirfenidone were used to treat post covid lung complications such as fibrosis. Both drugs were shown good antifibrotic property in clinical trials for fibrotic lung disease and observed positive outcome in restoring lung parenchyma. Time trends of final radiological outcome has evolved over months with or without treatment with antifibrotics and steroids. Importantly, Post covid lung fibrosis resolved more than fifty percent cases in six months and nearly in all cases after one year. Thus, antifibrotics were used irrationally in fibrosing lung condition of reversible type [53-58]. Post COVID lung fibrosis is considered as 'health issue of great concern' initially in post pandemic phase of first wave, and due to its resolving nature over time period; now considered as 'sigh with relief' due to its reversible pathophysiology. Post COVID sequel is minimal residual effects of COVID-19 lung disease irrespective of disease severity in past. Authors recommend to use term post COVID sequel over post COVID lung fibrosis [57, 58].

Long COVID is more prevalent chronic health care issue in post COVID care settings. We are in great piece of relief due to nearly end of this deadly pandemic which has caused significant change in routine of entire globe. Long COVID is an unpredicted sequel of COVID-19 disease documented nearly in half cases globally. Long COVID is multisystem syndrome with nonspecific symptoms and organic signs of unidentified pathology occurs after COVID-19 disease. Long COVID symptoms has been documented in 'selected' cases irrespective of disease severity or hospitalization and possible link remains unknown. Long COVID symptoms has significant impact on quality of life in those cases suffered from disease in recent past and lingering to almost two years since infection. Importantly, not all cases of COVID-19 were shown long COVID symptoms. Most common long COVID symptoms as joint pain, fatigability, chest discomfort, shortness of breath, hair loss, chest pain, weight gain, anxiety/depression & memory impairment. Pathophysiology resulting into long COVID manifestations is still not completely validated. Researchers have reported 'immune dysregulation',

'autoimmunity', 'antigenic mimicry' & 'coagulation abnormalities' are probable pathophysiological mechanism for long COVID. Some of the long COVID effects shown complete reversibility including post COVID lung fibrosis. Reboot system to restore immune dysregulation and recovery in long COVID is real concern. Long COVID symptoms cases are more health conscious and usually follows pattern of doctor shopping due to underestimation by family physicians either due to lack of suspicion or lack of knowledge regarding treatment protocol. Still, we are not having right answer for exact duration of long COVID symptoms and when it will show complete reversibility. Further, it needs 'birds eye vision' to pick up and manage cases with long COVID manifestations during routine care in rehabilitation unit [59-64]. Long covid is observed in selected group of patients and occurs irrespective of severity of covid, irrespective of hospitalization and interventions required during hospitalization. Long covid occurrence is observed in special class of patients which can be predicted early during course of illness by analysing markers. Biochemical markers will help in suspecting chance of occurrences but sequential markers will help in targeting interventions to prevent it and guide in management of long covid. Clinical presentation and immunological patterns are different during different waves due to either genetic makeup or immune pathway alterations resulting into long COVID. [65-69] Pathophysiology resulting into long COVID manifestations is still not completely validated. Researchers have reported 'immune dysregulation' and 'coagulation abnormalities' are probable pathophysiological mechanism for long COVID. Some of the long COVID effects shown complete reversibility including post COVID lung fibrosis. Reboot system to restore immune dysregulation and recovery in long COVID is real concern. Long COVID symptoms cases are more health conscious and usually follows pattern of doctor shopping due to underestimation by family physicians either due to lack of suspicion or lack of knowledge regarding treatment protocol [70, 71]. Immune alteration is documented after natural infection & effect of vaccination in restoring Th1/Th2 interplay is not known. The 'reboot system' or time required to restore 'normalcy' is a real concern as documented as our immune phenomenon.

## CONCLUSION

In this case report, a young medical professional presented with acute febrile respiratory illness with unilateral lung disease noted in left lung and empirically managed as a case of community acquired pneumonia with partial response and clinical worsening after initial treatment. Laboratory parameters were given clue to workup towards COVID-19 pneumonia, and diagnosed as sporadic case of COVID-19 illness with positive RT PCR results. We have treated with standard institutional COVID-19 protocol and documented cure with successful treatment outcome.

**Key Learning Points from this Case Report Are**

1. COVID-19 infection involves a complex interplay of the immunological and inflammatory responses. Inflammatory parameters are closely linked to the COVID-19 severity and mortality. Inflammatory parameters could be used to predict the transition from mild to severe/critical infection in patients of COVID-19.
2. Pulmonary, extra pulmonary and pulmonary-extra pulmonary involvement were documented 'selectively' with genetic makeup of virus variant. Pulmonary were more common with Wuhan and delta variants and extra pulmonary were more frequently reported with omicron and other recent corona virus related variants. Pulmonary and extra pulmonary manifestations were reported with Wuhan variant.
3. Sporadic cases related to COVID-19 illness are expected to occur in spite of natural infection acquired herd immunity and universal vaccination in National Health Policy related Hybrid immunity. Sporadic cases were reported in last decade with influenza virus related global pandemic swine flu post pandemic phase for years afterwards
4. Atypical radiological presentations in COVID-19 are very rarely reported since beginnings due to characteristic radiological lung lesions such as GGOs and consolidations predominantly involving bilateral, peripheral lung parenchyma observed during pandemic. Other radiological presentations such as consolidation with cavitation, consolidation with necrosis, predominate GGOs, Predominant consolidation and bronchopneumonia like presentations have been reported.
5. Composite index will play a crucial role in early suspicion, diagnosis, monitoring, and recognition of complications, management and disposition of patients. Each of these components in turn can have crucial implications on the healthcare system and the administrative machinery, directly impacting patient care
6. As Unilateral infiltrates are less frequently reported during COVID-19 pneumonia and during pandemic, one can assume 'Rare things are rare to happen'; especially in post pandemic phase. In era of evidence-based medicine, rare things are not usually rare to happen, high index of suspicion is must and timely utilization of available resources for diagnosis and treatment of these cases will have successful treatment outcome.

**Abbreviations**

RT PCR-real time reverse transcription polymerase chain, HRCT-high resolution computerised tomography, CRP C-reactive protein, SpO2 oxygen

saturation, LDH lactate dehydrogenase, IL-6 Interleukin-6, CT-computerised tomography, SARS-CoV-2 severe acute respiratory syndrome-corona virus-2 BIPAP/NIV-bilevel positive airway pressure/non-invasive ventilation.

**Conflicts of Interest:** NIL

**Research Funding:** NIL

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