

Case report and clinical therapy on acute respiratory failure after Covid -19.

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Abstract

In December 2019, an outbreak of coronavirus disease 2019 (COVID-19) caused by acute respiratory failure was observed in Wuhan, China. The World Health Organization has classified it as a significant threat to international health (WHO). **Clinical finding:** A 52-year-old male a complaint of Fever (102°F) and Difficulty in Breathing breathlessness, difficulty in swallowing in the last 1 week. And cough for the patient for 20 days. And nasal blockage **Diagnostic Evaluation HRCT Score =15/25 Is Done on Date 20/5/21, HB=7.9gm% Total RBC Count- 3.56million /cu mm, Total WBC Count 10500cu.mm, Total Platelet Count 2.73 Lakhs/cu.mm, sodium 138, uric acid 3.3, potassium 3.5, magnesium 1.9.** **Therapeutic Intervention Treatment is given to the patient like tablet zifi Turbo 600 mg BD, capsule pan -D -OD, Tablet Ecosprin 150mg OD, Tablet Limcee BD, Tablet Zinc OD, Tablet Atorin 40 mg HS, Tablet Levocet HS, Nebulizer with Deoline and Budocort.** My parent Ramchandra Jadhav age 52-year-old male was admitted in medicine HDU ward/Unit no.3 A.V.B.R. Hospital on date 2 may 2021 As the patient was diagnosed with the case of Acute Respiratory Failure after covid -19 The patient is on treatment.

Keywords: Venous extracorporeal membrane oxygenation, COVID-19, Acute respiratory distress syndrome, Ultra-protective ventilation.

Introduction

In December 2019, an outbreak of coronavirus disease 2019 (COVID-19) caused by acute respiratory failure was observed in Wuhan, China [1]. The World Health Organization has classified it as a significant threat to international health [2]. COVID-19 had a clustered start and primarily impacted the respiratory system, with some individuals developing acute respiratory failure. Quickly; other organ functions were less affected [3]. These people would almost certainly be admitted to the intensive care unit (ICU) and die there. The elderly and those with comorbidities have the highest mortality rates [4]. Although the clinical symptoms of COVID-19 have been documented in diverse studies, the cause of death appears to be ARF [5].

Our understanding of it is still limited. Is it possible to diagnose COVID-19-related acute respiratory failure as ARDS in all cases? Most likely, the answer is no. Based on current reports and our experience in the management of COVID-19-related ARF patients, we determined that there are significant differences between COVID-19-related ARF caused by other

characteristics as stated by Berlin criteria, and thus differences in treatment Table 1.

As a result, we set out to characterize the characteristics of COVID-19-related ARF and to distinguish them from one another [6].

Patient identification

A male aged 52 years old from Deoli district Wardha was admitted in medicine HDU ward AVBRH on Date 2 may 2021 Diagnose as the case of acute Respiratory Failure After covid -19 His weight 67 kg And Height is 164 cm.

Present medical history

A male aged 52 years old was brought to A.V.B.R. Hospital on 2 may 2021 by his with the complaints of Difficulty in breathing Breathlessness, Difficulty in swallowing, restlessness, profuse sweating, and fever from 3 days for which he was admitted to medicine HDU ward Table 2. He is case of Acute Respiratory Failure after covid - 19 and his hemoglobin level at the time of admission was 7.9gm%.

Table 1. Nursing Diagnosis ineffective airway clearance related to disease conditions.

| Nursing Interventions | Rationale |
|--|--|
| 1. To give the fowlers or semi fowler position to the patient. | To feel comfortable and easy to breath |
| 2.To give the Nebulization therapy | To clear the airway |
| 3. Oxygen therapy administer to the patient | To maintain the normal breathing pattern |

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Table 2. Nursing Diagnosis Hyperthermia related to infection process and secondary to disease condition.

| Nursing Interventions | Rationale |
|--|----------------------------|
| 1. To give cold sponge bath | To reduce body temperature |
| 2. To provide the calm and quite environment | To feel comfortable |
| 3. To give antipyretic Drug | To reduce the fever |

Table 3. Nursing Diagnosis fear and anxiety related to hospitalization secondary to disease condition.

| Nursing Interventions | Rationale |
|---|---|
| 1. maintain rapport with the patient and with his family | To induce comfort so that they can share about the queries and problem. |
| 2. give information on the state of the disease and treatment options | To increase knowledge regarding disease condition and treatment modalities of the patient and family. |
| Counsel the patient regarding the mentioned fear and anxiety | To reduce the fear and anxiety related to hospitalization. |

Past medical history

My patient has a history of Covid -19 in score for 14/25 and symptoms of patients Difficulty in breathing cough continuously Fever and all investigation is done for Covid. RTPCR positive Report and to give the treatment for A.V.B.R. Hospital after complications to create the symptoms for Acute Respiratory Failure. He was admitted in A.V.B.R Hospital.

Family history

My patient family comprises four members. He was diagnosed to have Acute Respiratory Failure After covid -19 with no abnormal genetic history from her parents. The parents had non-consanguineous type of marriage. Except for the patient admitted to the hospital, other family members don't have any complaints regarding their health.

Past intervention and outcome

A patient Complaint is Difficulty in breathing and Breathlessness, Difficulty in swallowing and after the HRCT Scan of Thorax Total score in 15/25 (moderate) Total score -15/25. Report has on date 20 may 2021 and diagnosed the Acute Respiratory Failure after Covid-19.

Clinical findings

A patient Complaint that he had Breathlessness and HB=7.9gm%, HRCT Scan of Thorax was Done on 20 may 2021.

Physical examination

General Examination: Examination from head to food pulse -86b/min, Respiration-18, Blood pressure-110/80mmHg, Height-152cm, and weight 62 kg.

Systemic examination: Respiratory system is B/L Air entry Decrease, cardiovascular system- S1 S2 Heart, central nervous system is irritable, abdominal examination- soft no any tender found in abdominal examination. The patient is thin and weak look dull he is conscious and we'll oriented with Date, Time and person patient is not co-operative.

Diagnostic assessment

Blood Test: HB=7.9gm%, Total RBC Count-3.56million/cu.mm, Total WBC Count-10500cu.mm, Total platelet Count-2.73Lacs/cu.mm, monocytes-03%, Granulocytes-60%, Lymphocytes-35%, Eosinophils 00%, sodium 138, uric acid 3.3, potassium 3.5, magnesium 1.9, calcium 13.2, ferritin

1360, RBS-117, phosphorus-3.5 HRCT scan of the Thorax was Done on date 20 may 2021 investigation used to evaluate the functioning and assess the section of your lungs. And the patient was diagnosed with acute respiratory failure after Covid-19.

Medical management

Treatment is given to the patient like Injection meropenem 1gm Intravenous TDS, Injection Doxy 100mg Intravenous BD, Injection Ceftriaxone 1mg Intravenous BD, Injection pan 40mg Intravenous OD, injection Tramadol 2ml TDS, Tablet Levocet HS, Tablet zinc 50mg OD, Tablet Dolo 650 mg, Tablet Limcee 500 mg OD, Tablet ecosprine 150 mg OD, Tablet Atorin 40 mg HS, Tablet Chymoral Fort TDS, Nose Drop Nasoclear TDS, and Atrinin and given to the ryles tube feeding to provide the 200ml, 4 hourly and alkaline nasal douching to give the patient to provide oxygen therapy.

Nursing management

This case belongs to medical department therefore nursing care played a vital role in every aspect Table 3.

Follow up care: The patient is advised to visit the hospital after 15 days in opd and he has been prescribed to take.

- Tablet Zifi Turbo BD-1 Day
- Tablet Ecosprin 150 mg OD
- Tablet Atorin 40 mg HS
- Tablet Levocit HS -7 Days
- Tablet Limcee 500 mg -10 Days
- Nose Drop Nasoclear TDS
- Nose Drop Atrinin TDS

The patient was also advised:-

1. Advice to take adequate rest and sleep.
2. Advice to do daily exercise.

Discussion

This case report describes a patient who had quickly escalating severe ARF as a result of COVID-19 infection. COVID-19 is known to cause ARDS, which is one of the most common consequences [7]. Two cases of tocilizumab treatment in Colombian patients with COVID-19 severe pneumonia and ARF are presented. Both patients had CSS, which was apparently

treated with an IL-6 antagonist. Fortunately, none of our patients experienced any tocilizumab-related side effects [8].

Although it is unclear how SARS-CoV-2 causes severe pneumonia, septic shock, ARDS, or even mortality, one of the key factors affecting patients is the immunological response, notably the development of CSS. SARS-CoV-2 has been shown to target cells that express the angiotensin-converting enzyme-2 receptor, which explains why this virus causes a lower respiratory tract infection, although it is still unclear what factors determine susceptibility to a severe infection.

Inflammatory markers including as IL-6, CRP, D dimer, LDH, and lymphopenia have been found to be elevated in patients with severe infections [9]. A number of related studies were reviewed [10].

Conclusion

A male patient aged is 52 years old from Deoli district Wardha was admitted to pediatric ward AVBRH on 2 may 2021 with the complaints of Difficulty in breathing Breathlessness, Difficulty in swallowing, Restlessness, profuse sweating, fever. He is diagnosed for Acute Respiratory Failure after covid-19 on Report of HRCT scan of Thorax score 15/25 on date 20 may 2021. As soon as the patient was admitted in AVBRH All the required investigation were done and appropriate treatments were started.

The patient is on symptomatic treatment. The patient and his family underwent psychological stress, which was resolved on an extent by being an active listener and providing proper counseling.

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