

POST-COVID COMPLICATIONS AND ITS MANAGEMENT – AN OVERVIEW OF THE POST-COVID MANAGEMENT PROTOCOL

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Abstract:

Ongoing global pandemic COVID-19 is a threat to the world population. The COVID-19 emerges with a wide variety of Clinical Manifestations mostly fever, sore throat, dry cough, myalgia, diarrhoea, Ageusia and Anosmia. Larger Proportion of Patients will continue to report the Persistent symptoms of COVID-19 even after recovering from COVID-19. Directorate General Ministry of Health and Family Welfare, Government of India had provided a Post-COVID Management Protocol which Provide an integrated and Holistic approach for managing the Patients with Post-COVID Complications. At individual level, At community Level, and another annexure containing the List of immune Promoting AYUSH medications.

Key Words: COVID-19, Post-COVID Complications, AYUSH, Symptoms.

INTRODUCTION:

The emerging pandemic of an unknown Pneumonia cases with severe respiratory symptoms was originated in December 2019 in the city of Wuhan, China. The causative agent was identified to be the Novel Corona virus and is known as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS CoV-2) . Later the WHO renamed the epidemic virus as Corona Virus Disease-2019(COVID-19). The COVID-19 has been confirmed to be the seventh identified Corona Virus in the family to affect humans. The COVID-19 emerges with a wide variety of Clinical Manifestations ranging from Asymptomatic to mild, to severe symptoms in the affected patients. The most prevalent symptoms are fever, sore throat, dry cough, myalgia, diarrhoea, Ageusia and Anosmia^[1]

It is noted that the larger Proportion of Patients will continue to report the Persistent symptoms of COVID-19 even after recovering from COVID-19. The Symptoms mainly fatigue is continuing in the Patient throughout the period of recovery and almost 80% of the COVID Discharged patients reported fatigue is most reported in Post illness which lasts for several weeks^[2]

It is now worth addressing people about the Post COVID Care in the Post Discharged Period. Psychological Intervention through counseling, Post COVID guidelines must be needed for the complete recovery of COVID-19.

POST- INFECTIOUS ENTITY – PERSISTENT SYMPTOMS IN PATIENTS AFTER ACUTE COVID-19

Corona Virus Disease is a new disease emerged as a global Pandemic has its effects on humans even after tested Negative (i.e) Post-Recovery period. Even after tested negative for the RT-PCR the recovered Patients may continue to report the various signs and symptoms which mainly includes Breathing Difficulty, Sore throat, cough, Fatigue. It has been also observed that COVID-19 Pandemic is not only affecting the lungs but also had an impact on the Kidneys, Digestive system, Brain, and Heart, This new Phenomenon of COVID-19 is called as the Post-COVID-19 Syndrome. Apart from the Dyspnoea, Sore throat, Cough, the recovered Patients were also experiencing the following Post-COVID Complications / Symptoms which mainly include the following^[3]

- Abnormal Heart Rhythm
- Persistent Diarrhea
- Digestive System issues / Malfunctions

- Rapid weight Loss
- Loss of Appetite
- Anosmia, Aguesia
- Seizures
- Disturbances in Sleep Pattern probably Insomnia
- Muscle Weakness

It is noted that almost 80% of the patients experiences the major symptoms (Post-COVID) Symptoms as Fatigue commonly referred as Post – COVID Fatigue. It usually lasts for several weeks and may resolve gradually.^[4]

EPIDEMIOLOGY OF THE POST-COVID SYNDROME / POST- COVID COMPLICATIONS:

According to the United Kingdom UK COVID Symptom study, Almost 70% of People who are experiencing the Post-COVID Symptoms even after COVID test negative in RT-PCR.^[5] An United States US Study reveals that about 65% of the People who are experiencing the Post-COVID Symptoms even after COVID tested Negative in RT-PCR.^[6] The Recovery Period of the Post-COVID Complications is prolonged due to various reasons, some of them are

- Persistent Viraemia due to weak or Absent Antibody Response
- Immune Reactions
- Relapse / Reinfections

COVID associated with long term Respiratory, Musculoskeletal, Neuropsychiatric abnormalities where they overlap with the Pathophysiology of COVID-19.^[7]

CLINICAL INVESTIGATIONS IN POST COVID-19 PERIOD:

The Clinical Investigation that are needed for the Post-COVID are usual Blood Investigations for example

- Lymphopenia is a feature of COVID-19
- Elevated Values of C - reactive protein (Bio-Marker) may also indicate an acute infection
- Elevated WBC Levels

Variations in the various Bio-markers such as Ferritin, Troponin, D- Dimer tests

British Thoracic Society Guidelines states that the Patient after Recovery Period who are Experiencing Post-COVID complications like dyspnea has to be recommended to take Chest X-Ray at 12 Weeks after recovery for finding any Progression in the Symptoms^[8,9]

POST-COVID MANAGEMENT PROTOCOL:

Directorate General Ministry of Health and Family Welfare, Government of India had provided a Post-COVID Management Protocol which Provide an integrated and Holistic approach for managing the Patients with Post-COVID Complications^[9]. This Protocol provided by the Ministry of Health and Family Welfare along with AYUSH is not meant to be used as a Curative or Preventive Therapy but recommended for the Faster Recovery from Post-COVID Complications.^[10] This Post- COVID Follow up Protocol may be divided or sub classified into 3 Parts as At individual level, At community Level, and another annexure containing the List of immune Promoting AYUSH medications. The Post-COVID Management Protocol is explained below

At Individual Level

- Even After tested negative for COVID-19, One must advised to continue the COVID appropriate behavior like using of the Mask preferably N95 or Cloth masks, Maintaining the Social Distancing at least two feet distance, Respiratory and Hand Hygiene.
- Moderate or Mild Exercise like Yogasanas and Meditations are really helpful mainly Pranayamas, Walking and Breathing Exercises can also be done as directed by the Physician
- Required amount of water preferably Warm Water can be taken
- Balanced Nutritious Diet preferably freshly prepared soft diet that can be digested easily. All the Vegetables should be dried in Sunlight and washed in Warm water before cooking
- Consumption of the Alcohol and smoking should be avoided as Smoking Predisposes to various Breathing Disorders
- Adequate amount of sleep and rest is also required
- Regular Monitoring of the Blood Glucose if Diabetic, Blood Pressure and Pulse Oximetry must be needed
- Saline gargles and Steam Inhalations are required if there is a sign of cough, Sore throat and Cold or any other persistent symptoms of COVID-19 ^[11,12]

At the Level of Community:

- Seek Support from the Self Help groups which is community based where there will be a Qualified Professionals for Rehabilitation and Recovery process such as Social support, Medical Support, Occupational and Livelihood.
- The subjects who are recovered from COVID-19 are insisted to share only the Positive Experiences with their Kith and Kin, They can also create awareness among the Public that can prevent the Myths and Stigmas prevailing in the Society
- Psycho-social support is needed for the recovered individuals too so they can seek the supportive services from Counselors and Health care workers etc.
- With all the due Precautions to COVID like using of the Mask preferably N95 or Cloth masks, Maintaining the Social Distancing at least two feet distance, Respiratory and Hand Hygiene, one must continue to participate in the regular Yoga Sessions and Meditations etc.^[13]

In Health care Setting:

- Regular Follow up after discharge atleast once in a week
- Followup visit should be conducted by the Registered Allopathic or AYUSH Practitioner
- Poly therapy or the concomitant use of allopathic and other Medicines should be avoided and they may even lead to the Serious Adverse Events and Drug Interactions^[14]
- Critical Care support and the Isolation is required for the Patients who has the Relapse of the Dreadful Viral Infection COVID-19.

IMMUNE PROMOTING AYUSH MEDICATIONS:

The List of AYUSH medications as directed by the Ministry of Health and Family Welfare, Directorate of Health, India is as follows.^[15]

- Ayush Kwath -150 ml
- Samshamani
- Giloy Powder
- Luke Warm Water
- Ashwagandha- 500 mg
- Amla Fruit
- Turmeric and Salt (For Gargling)
- Chyawanprash

These were the Medications recommended to Prevent or aid in the faster recovery of the Post-COVID entity or Post- COVID Complications or Post COVID Syndrome.

CONCLUSION

COVID-19 is the major threat nowadays and considered as the Global Pandemic. Even after recovering from COVID, Post-COVID entity is also have to be considered and COVID recovered individuals has to be advised regarding the Post-COVID Follow-up and Post-COVID Care and must adhere to the Post-COVID Protocol Provided by the Directorate General, Ministry of Health and Family Welfare, Government of India for Faster Recovery and thereby improving the Patient's Quality of Life.

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