Palliative Care Issues in Post-COVID-19

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Palliative care has been defined by the International Association for Hospice & Palliative Care (IAHPC) in 2018 as "The active, holistic care of individuals across all ages with serious health-related suffering due to severe illness, and especially of those near the end of life. It aims to improve the quality of life of patients and their caregivers" [1]. It is a multidimensional specialty that emphasizes the patient and family-based care and helps in symptomatic improvement of patients during the course of disease and treatment, as well as during the terminal stage when the focus is primarily comfort.

There is a common perception that palliative care is only for cancer patients, but in reality, it has spread its horizon and is required for critically ill [2] as well as patients suffering from chronic ailments. Globally, there is a constant gap between the clinical care required and the public healthcare infrastructure available. This gap came to the fore during the COVID pandemic. The pandemic has affected humankind at various levels—physical, psychological, socioeconomic, as well as spiritual. However, interdisciplinary coordination has given clinicians an opportunity to bridge the gap between clinical care and public healthcare measures. Recently, studies have emphasized the important role of palliative care in the pandemic [3, 4]. In fact, the need for palliative care has been felt not just during acute COVID but also during the post-COVID phase due to the myriad of symptoms that persist after recovery from acute illness.

It is now evident that a holistic approach is required to manage the post-COVID symptoms to provide a better quality of life for patients as well as caregivers. The role of the palliative care physician includes:

1. Symptomatic management, discussion about the course of illness, advanced care planning, and psychosocial support to the patient and family members [5, 6]

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2. Teaching and training at the institute level to enable other colleagues to handle the increased demand for palliative care during the time of crisis [7]

14.1 Primary and Specialty Palliative Care

Any physician can provide primary palliative care. They can manage basic symptoms like pain, nausea, constipation, and anxiety. The role of a palliative care specialist was felt in the 1990s in order to provide specialist palliative care services for managing refractory symptoms, complex decision-making, and end-of-life care discussions. This assumes greater importance during a pandemic where many people are suffering at the same point of time [8].

14.2 Postulated Reasons for Post-COVID Symptoms

Several mechanisms have been proposed for the persistence of symptoms beyond the acute COVID episode, such as:

- The persistence of the virus in the body due to weak host immune response
- Relapse or reinfection
- An inflammatory reaction to the virus
- Deconditioning
- Anxiety and post-traumatic stress disorder

14.3 Post-COVID Symptoms

Majority of patients with COVID recover completely within a few days to a few weeks, but symptoms persist in a significant proportion.

These patients are often labeled as "long haulers" and the condition has been termed as post-COVID syndrome or "long COVID-19" [9]. Elderly and those affected by comorbidities are affected the most. Common signs and symptoms that are observed in post-COVID phase include:

- Fatigue and malaise
- Dyspnea
- Cough
- Chest pain
- Cognitive dysfunction including memory and concentration problems
- Insomnia
- Headache
- Palpitations
- Loss of smell or taste
- Depression and anxiety

- Fever
- Dizziness

14.4 Post-COVID Lung Sequelae

Post-COVID lung sequelae lead to breathlessness. This may be due to multiple causes. The Breathing-Thinking-Functioning model explains that inefficient breathing, thoughts about dying, and reduced body activity all together lead to breathlessness [10].

14.4.1 Non-pharmacological Management

- Blowing of a fan in front of the face
- Pursed lip breathing and prolonged exhalation
- Physiotherapy and rehabilitation
- Huff-puff technique to clear secretions
- Postural drainage

14.4.2 Pharmacological Management

- Anti-inflammatory and antiviral agents as per recommended guidelines.
- Anti-fibrotic agents, e.g., pirfenidone and nintedanib. No conclusive evidence is currently available for the beneficial role of these agents in post-COVID lung sequelae. The prescription of these drugs is to be decided on a case-to-case basis keeping risks as well as benefits in mind.
- Morphine given in low dose helps the patient with dyspnea and makes them cooperative while doing pulmonary physiotherapy.

14.5 Post-COVID Dyspnea: Management Principles

Dyspnea is one of the commonest post-COVID symptoms. The WHO recommends opioid use in refractory dyspnea.

- Oral and parenteral opioids have been shown to reduce the sensation of dyspnea without causing significant respiratory depression [11, 12]. Oral morphine can be given in the dose of 2.5 mg prn/q4h.
- Oral mirtazapine [13] in the dose of 15 mg once daily can be prescribed for post-COVID chronic dyspnea Alternatively, oral promethazine can be added in dosage of 25–50 mg thrice daily.

- A specialist palliative care physician should be involved in medical care if the above measures fail, for opioid-tolerant patients, and for patients with kidney or liver dysfunction.
- Non-pharmacological measures: cool wipes, menthol lozenges, cool room temperature, avoid fan due to potential aerosol generation, prone positioning, forward lean position, near window bed, and 20-min mindful breathing.

14.6 Post-COVID Cough: Management

- Codeine linctus (15–30 mg prn/QID) is the preferred first-line agent in the pharmacological management of COVID-associated chronic cough; oral morphine (2.5 mg prn/q4h) is used as the second-line agent [14]. Inhaled steroids and bronchodilators have also been tried in refractory cough with some benefit.
- Tiotropium (18 mcg daily) has also been used.
- Gabapentin (300 mg TDS up to a maximum dose of 600 mg TDS) or pregabalin (up to 150 mg BD) can be considered for refractory post-COVID cough [15].
- N-acetylcysteine (200 mg TDS up to the maximum dose of 600 mg BD) is useful in patients with productive cough with thick secretions.
- Non-pharmacological measures: Treat underlying causes, identify and avoid cough triggers (cold air, cold drinks, dry atmospheres, particular food and spices, exertion, talking), drink warm water and honey, and practice mindful coughing (surf the urge and huff if necessary); for productive cough, measures include huffing, incentive spirometry, and self-administered chest physiotherapy.

14.7 Post-COVID Fever

- Fever associated with headache or body ache is treated with oral paracetamol (1 g prn/QID) or ibuprofen (200–400 mg prn/QID).
- Non-pharmacological measures include rehydration, cool wipes, reducing room temperature, consuming cold drinks or ice cream, loose clothing, and light bedding.

14.8 Psychological and Spiritual Suffering

- Deep breathing exercises and relaxation techniques can be utilized.
- Benzodiazepines, e.g., alprazolam or lorazepam, should be used carefully in patients where anxiety is refractory to psychological measures. If required in elderly, these should be given in low dose and tapered rapidly [16].
- Second-line agents for the treatment of anxiety includes gabapentin, olanzapine, and haloperidol.
- Oral melatonin is an option for post-COVID patients with sleep disturbances [17].

14.9 Psychosocial Support

Post-COVID patients and caregivers both face challenges at the level of various fronts—physical, psychological, spiritual, and socioeconomic. Palliative care helps in alleviating the suffering at the physical and psychological levels. In general, communication with patients and caregivers regarding the disease course and prognosis is challenging, especially in terminal illnesses. This is even more difficult during the pandemic due to the need to maintain physical distancing and use of personal protective equipment. Palliative care plays an important role in solving this conundrum.

Healthcare providers need to:

- Give realistic hope and honest opinion
- Show empathy with the patient and their family members during the end stage of life
- Acknowledge the emotions demonstrated by the patient and family
- Listen patiently
- Handle any anger or dissatisfaction with maturity and restraint

Reports suggest that the mental health effects of COVID can persist for prolonged periods of time even after clinical recovery. Managing this stressful period is an essential aspect of palliative care [18].

14.10 Grief and Bereavement

Rapid deterioration in the health and a fatal outcome of COVID infection are events for which family members may not be mentally prepared. Due to policies of isolation, often the family members are unable to meet their loved ones in the last moments of life. In all these situations, palliative care plays an important role.

Management of grief and bereavement [19]:

1. Recognize the suffering and emotions of caregivers
2. Rule out organic causes such as psychiatric disorders
3. Provide psychological and emotional support
4. If required, refer to a mental healthcare professional

14.11 Psycho-education

The physician must give accurate information in a calm and composed manner during times of stress. Techniques such as yoga, meditation, mindful breathing, and problem-solving skills are extremely helpful. During end-of-life stage, if the patient requests, then spiritual concerns should be considered important and addressed, if possible. Therapies to foster purpose at the end of life will enhance the overall outcome. Pharmacological management in the form of escitalopram 10–20 mg/day or

sertraline 50–200 mg/day can be prescribed for anxiety and depression. To overcome the anxiety due to the disease and disease-associated stigma, patients may be given lorazepam 1–2 mg at night. However, these drugs should be stopped at the earliest possible. Agitation or delirium may respond to haloperidol 2.5–5 mg/day or olanzapine 5–10 mg/day.

14.12 Take-Home Message

- Integration of palliative care in acute COVID and post-COVID phase is of paramount importance for enhanced decision-making, better symptom management, safe use of opioids, alleviation of social isolation at the end of life, and bereavement support. The knowledge and expertise of a palliative care specialist should be utilized for these purposes.
- One must optimize interdisciplinary coordination, maintain continuity of care, enhance social support, include palliative care services at the primary healthcare level with the help of teaching and training, and form standard treatment guidelines and protocol for different pandemic phases.

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