



## Correspondence

## Recommendation of yoga and naturopathy intervention for the effective management of post covid syndrome



Dear Editors,

COVID-19 has turned out to be the greatest pandemic of twenty first century, with increasing morbidity and mortality. COVID- 19 infection was first detected in China on December 2019 and declared as pandemic by world health organization on March 11, 2020 [1,2]. Recent advances in vaccination and other immunotherapy are providing a sigh of relief and a ray of hope for better management and prevention of the pandemic [3].

However, Covid 19 and its aftermath would impose severe crisis on the health care system. The post-covid 19 manifestations are collectively known as Post Covid Syndrome or long Covid or Post covid sequelae. There are currently no documented evidences or guidelines available on the uniform symptoms for the Post Covid Syndrome. Recent studies report persistent impairment of lung function, inefficient physical performance, reduced health-related quality of life, immunosuppression, vascular fibrosis, cardiac ailments and various psychological impairments such as anxiety disorders, panic attacks, depression, and post-traumatic stress disorders as few of post-covid complications [4]. Due to suspected long-term consequences of COVID-19, the available literature recommends early rehabilitation, and calls for scientific studies on the domain of post-covid rehabilitation. A multi-professional and interdisciplinary rehabilitation approach is recommended for post Covid complications.

World Health Organization (WHO) suggests rehabilitation for COVID-19 patients to include postures to ease breathing, various exercises and most importantly managing stress and anxiety, along with healthier life style modifications [5]. Moreover, reviews regarding post covid 19 infection recommends rehabilitation programs to restore physical and mental health, in patients with psychological distress irrespective to age and in patient with comorbidities, either with or without symptoms at the earliest [6]. Timeline of rehabilitation is completely based on an individual patient's prognosis.

Yoga and Naturopathy system of medicine is a widely practiced complementary and alternative medicine (CAM) therapy in India, and proved to be beneficial in the effective management of COVID-19 as well [7]. In addition, the uniqueness of Yoga and Naturopathy treatment modalities, especially with respect to COVID-19 and post-COVID syndrome, lies in the fact that yoga and naturopathy treatments are well known for their antioxidant and anti-inflammatory properties in various disease conditions, which would play a significant role in defying the cytokine storm in a safer

and effective manner [8–10]. Similarly, by practicing pranayama (breathing exercise), an integral component of yoga, pulmonary function improves to a greater extent along with reduction in local inflammation as well. Specific pranayamas like Bhramari have been documented to be beneficial in the management of COVID-19, through possible mechanism of increase in the nitric oxide which is a well-known vasodilator and would be a beneficial agent in the prevention and management of associated vascular complications of COVID-19 [11]. The unique protocol which is formulated by qualified Yoga and Naturopathy physicians aimed at curbing the cytokine storm associated with COVID-19, comprises of unique set of asanas, pranayama, along with Naturopathy interventions like steam inhalation, salt water gargling, natural immune boosting drink, aromatherapy and sun exposure had significant reduction in anxiety and depression level in COVID-19 patients [12]. In addition, qualitative analysis of Yoga and Naturopathy intervention showed that it played a remarkable role in improving the emotional and psychological wellbeing of patients along with improved quality of sleep and reduced breathing difficulty in patients with COVID-19 [13]. Studies also recommend the use of Yoga and Naturopathy intervention along with conventional care [14,15]. Inclined by the exceptional role of Yoga and Naturopathy in management of COVID-19, physicians advocate its use in the management of post covid sequelae. Post covid syndrome which is unique for every individual will require special care, attention and distinct protocol for effective management.

Naturopathy philosophy primarily emphasizes on the “Salutogenic resources” or the “Origin of health”, rather than focusing on origin of disease [16]. Naturopathy believes that the major role of a physician is to identify the obstacles of health and create a conducive internal and external environment to augment health [17]. For this very purpose of augmenting health, Naturopathy utilizes various treatment modalities such as hydrotherapy, mud therapy, chromo therapy, magneto therapy, heliotherapy, diet, fasting and massage. All of which relies on the basic Naturopathy principle of ‘promoting health and vitality’. According to Naturopathy, vitality refers to the ability of the body to adapt and self-manage, which also governs immunity and overall functionality of the human body [18,19]. During post-covid state, immunity of the individual was compromised to great extent, Naturopathy and Yoga paves way to promote health, by improving natural immunity through various treatment modalities. Yoga and Naturopathy would be an effective option in providing an individualized and evidence-based treatment for the management of post covid syndrome to promote physical, mental and social well-being.

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V. Venugopal, S.T. Venkateswaran

*Department of Yoga, Government Yoga & Naturopathy Medical College & Hospital, Chennai, Tamilnadu, India*

R. Poornima

*Government Yoga & Naturopathy Medical College & Hospital, Chennai, Tamilnadu, India*

K. Maheshkumar\*

*Department of Physiology, Government Yoga & Naturopathy Medical College & Hospital, Chennai, Tamilnadu, India*

\* Corresponding author.

E-mail: [doctor.mahesh1985@gmail.com](mailto:doctor.mahesh1985@gmail.com)

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