

**CRITICAL ANALYSIS REGARDING ROLE OF YOGA IN THE
MANAGEMENT OF HYPERTENSION AS COMORBIDITY
CONDITION DURING COVID 19 PANDEMIC****Shraddha S. Bhasarkar^{1*}, Vrushali Khandekar² and Sumeeta Jain³**¹Pg Scholar, Department of Swasthavritta and Yoga, Government Ayurved College, Nagpur.²Assistant Professor, Department of Swasthavritta and Yoga, Government Ayurved College,
Nagpur.³HOD, Associate Professor, Department of Swasthavritta and Yoga, Government Ayurved
College, Nagpur.Article Received on
16 July 2020,Revised on 06 August 2020,
Accepted on 26 August 2020

DOI: 10.20959/wjpr202010-18499

Corresponding Author*Dr. Shraddha S.
Bhasarkar**Pg Scholar, Department of
Swasthavritta and Yoga,
Government Ayurved
College, Nagpur.**ABSTRACT**

Covid 19 is already a pandemic. Covid 19 pandemic has affected the world drastically and has placed a major challenge in front of health care systems. Also, the data suggests the mortality rate of patients dying with covid 19 is highly associated with comorbidities like hypertension, diabetes mellitus which are found to be very common today, every third person is found to be affected with some or the other disease. In the current situation, patients suffering from an associated disease like hypertension being in common, contributory for an increased mortality rate. A systematic research was made through the medical journals and databases in English language related to the article. Samhitas, and related textbooks were also referred to gain the

information In this article an attempt is being is made to bring into notice how yoga helps in coping with hypertension and thus helps in fighting with comorbidity.

INTRODUCTION

The corona virus disease 19 (COVID 19) pandemic is unique and has changed our lifestyles in a very drastic way. There has been a paradigm shift in the day to day life of human beings as well as other living beings. This disease has challenged the health care sectors in the most possible harsh ways. At present, the global momentum is unabated and a second wave is anticipated.^[1] In ayurveda the epidemic management has been described in the charak

samhita, the classic of ayurveda and also it has been described that immunity is the ability to prevent disease and arrest its progress.^[2]

As per the current scenario, it can be clearly seen there has been a major change in lifestyles of human beings. We can see that the then human being who was extremely busy with his work schedule and had no time for him as well as his family can be seen spending time with them on the other hand many people are fighting with COVID 19 few of them are dying of the disease too. Though in India, the mortality rate is low as compared to other countries but those having a comorbid condition are more to death. Comorbidity is the presence of one or more additional conditions often co-occurring with a primary condition. Comorbidity describes the effect of all other conditions an individual patient might have other than the primary condition of interest and can be physiological and psychological.^[3]

Emerging data suggests that older COVID 19 patients with other comorbid conditions such as diabetes, hypertension, cardiac and pulmonary disease in particular, are more susceptible, compared to general population and have higher mortality.

In this article an attempt is being made to bring forth how yoga helps in reducing hypertension and helps in combating with COVID 19 by creating a positive environment besides it. This article tells us how yoga helps in relieving stress which helps in maintaining the blood pressure. Hypertension means persistently high arterial blood pressure; it may have no known cause (essential, idiopathic, or primary) or may be associated with other diseases.^[4] Hypertension which increases the mortality rate can be prevented by maintaining the blood pressure through yoga.

Yoga, mental health and hypertension *Yogashchittavrittinirodh*, yoga is restraining the mind stuff (*chitta*) from taking various forms (*vrittis*).^[5]

When we say psychosomatic disease, it means diseases caused by the imbalancing and disorganization of mental processes which proceeds as though they were disconnected from our control. The brain normally programs the body by sending excitatory or inhibitory impulses to certain areas and by regulating balance of the autonomic and sensory motor components of the nervous system. When disorder and chaos occur in the higher realms, the brain circuits are altered and cells of the brain, neurons are disconnected and reconnect to new locations which have maladaptive and destructive effects on the rest of the body.

Irregularities of the blood pressure regulation system are caused in this way. The mind works through the individual patterns of the body and our energy flows according to the channels opened and closed to it.^[6]

Mind is the basis of hypertension as it controls our personality, emotions, lifestyle and habits. Aspects of lifestyle such as smoking, high fat diet, heredity and ageing all comes under the influence of mind as it is more subtle and powerful aspect of our being. Stress is an outcome of the modern lifestyle. It is produced out of dissatisfaction, frustration and dejection when there is negative interaction between the self-projection and the adverse internal as well as the external environment conditions. At present, the human existence is challenged by the stress disorders or the psychosomatic diseases such as hypertension, hyperacidity, insomnia, heart diseases, diabetes, asthma, etc.^[7] Mind gives the objective reality on our subjective interpretation. Man is the only living creature who can shape his environment to suit his desires and abilities. He can change his own life and thereby affect the world around in a positive or negative way. If positive, he remains healthy and fulfils his life which can only be achieved through yoga and if he creates negative environment he himself creates conditions conducive to the development of high blood pressure. Yoga helps in maintaining calm and fight with stress and anxiety.

How hypertension contributes as a comorbidity in COVID-19?

COVID-19 seems to follow a pattern with influenza and previous severe acute respiratory syndrome coronavirus (SARS-CoV) outbreak, also the severity and mortality of the infection is higher in the elderly age group. As hypertension is strongly age related, therefore hypertension has gained a prime importance in contributing as comorbidity in COVID-19.^[8]

MATERIALS AND METHODS

A systematic search was made through the medical database using keywords yoga, COVID 19, comorbidity, hypertension. Also matter was collected from the various textbooks, samhitas, medical journals, newspaper articles, etc.

Yogic management of hypertension

Yama^[9]: the five *yamas* *ahimsa*, *satya*, *Asteya*, *Bramhacharya* and *aparigraha* are known as self-regulation which help us establish better relations with other people.

Niyama^[9]: the five niyamas *shaucha, santosh, tapah, swadhyaya and ishvarpranidhan* are practices of self- training which help us deal with self.

Asanas^[10]: asanas helpful in the management of hypertension are in standing postures such as *tadasana, trikonasana, padottanasana, hastapadasana, padangushtasana* are useful. Prone positions that are of benefit include *bhujangasana* and *ardha shalabhasana* while useful sitting postures include *gomukhaasana, ushtraasana, shashankasana* and *yogamudra asanas*. The supine postures include *matsyaasana, pavana muktasana* and *shavasana*.^[11]

Pranayama: Practice of breath control and breathing techniques with awareness, making breathing slow and subtle. Exhalation is prolonged. The pause between inhalation and exhalation is eliminated. It helps in control of mind and concentration (*dharana*). Nadi shuddhi pranayama (*anulom-vilom*) and Bhramari pranayama are excellent practices to reduce stress. *Pranayama* such as *sheetali* and *sitkari* also produces a sense of relaxation. To meditate means to focus on one's mind for a period of time, it can be used as a method of relaxation.

Pratyahara: *Pratyahara* means withdrawal of the senses of cognition and action from both the external world and the images or impressions in the mind, this helps oneself to prevent oneself from distractions.^[9]

Dharana means holding onto one subject, *dhyana* means sustained concentration and samadhi is state of bliss or reaching a state of absorption in a subject or in the divine which keeps an individual involved in oneself helping and giving him time to relax.

Yoga nidra: yoga nidra is a systematic method of inducing complete mental, physical and emotional relaxation. Yoga nidra is the yogic tranquilizer which helps in establishing harmony and wellbeing through the entire system.

DISCUSSION

Yoga helps to cure yourself from hypertension by offering the following practices.^[12]

1. Relaxation techniques which incorporate desensitization, autosuggestion and deconditioning to remove mental tensions and complexes. These practices help you to cultivate a positive attitude towards life and yourself. Each experience then becomes a learning process even if there is a little pain involved. Through awareness the mistaken concepts are replaced with more realistic, practical and positive concepts of life.

2. *Asana* and *pranayama* rebalance the physical, emotional, pranic, mental and psychic aspects of human beings.
3. Meditation induces relaxation and develops self knowledge. Meditation helps in coping up with external stress and influences cleaning of the mind step by step, purifying, remoulding and realizing more about oneself. Meditation follows from sense withdrawal (*pratyahara*) and concentration (*dharana*) and finally culminates in self realization.

The activity of the brain slows down allowing a state to complete rest to occur in the body and mind. The breath and heart rate are lowered and the whole body enjoys deep rest.

In this state the blood vessels dilate and oxygenated pureblood reaches the body organs, rejuvenating and repairing damaged tissues and maintaining healthy tissue. Lactate and other toxic poisons are removed, more efficiently and the vitality increases. The circuits of the brain and mind are given chance to reshape themselves into a more harmonious form which affects the whole body through the peripheral nervous system.

It has been found that all of the above yogic practices aid in the cure of hypertension by^[13]

- a) Reducing mental tensions
- b) Rebalancing and enriching the supply of prana
- c) Removing the effects of stress such as toxic wastes
- d) Reharmonising the endocrine chakra complex.
- e) Adjusting the lifestyle so that it becomes more positive and healthy, removing the bad habits that have led to high blood pressure
- f) Strengthening the whole body mind complex so that hereditary, acquired weakness are removed. The ageing process slows and does not result in tissue degeneration. Faulty tissues are regenerated through meditation, redirection of prana and healthy life habits.

CONCLUSION

The pandemic COVID 19 is increasingly associated with comorbidities that include hypertension and diabetes mellitus. Therefore, special care is required to be taken of patients with COVID 19 associated with comorbidities because they are more vulnerable due to presence of these comorbidities since hypertension is exceedingly frequent in the elderly and older people appear to be at particular risk of being infected with SARS Cov-2 virus and of

experiencing severe forms and complications of COVID 19. However, several organizations have already stressed the fact that blood pressure control remains an important consideration in order to reduce disease burden, even if it has no effect on susceptibility to the SARS CoV 2 viral infection.^[14] Future studies reporting the outcome on the basis of different anti-hypertensive drugs used in COVID 19 may further add into our knowledge in this regard. This article focuses on the role of yoga and yogic practices in maintaining the hypertension by reducing stress and maintaining positive environment all over and prevents conversion morbidity into mortality.

REFERENCES

1. Cyranoski D, "we need to be alert", scientist fear second coronavirus wave as china's lockdowns ease. Nature, 2020. DOI:10.1038/d41586-020-00938-02, online document at <https://apps.who.int/iris/bitstream/handle/10665/331640/who-2019>.
2. Tripathi R, ed. Charak Samhita, Varanasi, India: Chaukhamba Surbharti, 1992; 570.
3. <https://en.m.wikipedia.org/wiki/Comorbidity>.
4. Dorland's pocket medical dictionary, 28: 416.
5. Swami Vivekananda, Patanjali yoga sutras, sanskrit texts with translation and commentary, 3.
6. Shankarananda S, Yoga On Hypertension, Yoga Publications Trust, Munger, Bihar, India, 37.
7. Gore M. M., anatomy and physiology of yogic practices, 4.
8. Kulkarni S, Bernadette L. Jenner, COVID-19 and Hypertension, jraas, DOI:10.1177/1470320320927851.
9. Taneja d, yoga and health, Indian journal of community medicine: official publication of Indian association of preventive and social medicine.
10. Bhavanani ananda balyogi, yoga therapy notes. Dhivyanaanada creations, iyyanar nagar, Pondicherry, 2008.
11. Datey k k, deshमुख SN, Dalvi CP, Vinekar SL, shavasana: a yogic exercise in the management of hypertension. Angiology, 1969; 20: 325-333.
12. Shankarananda S, Yoga On Hypertension, Yoga Publications Trust, Munger, Bihar, India, 66.
13. Shankarananda S, Yoga On Hypertension, Yoga Publications Trust, Munger, Bihar, India, 67.

14. <https://professional.heart.org/professional/sciencenews/UCM-sos-836-HFSAACCAHA-statement-addresses-concerns-re-using-RAAS-antagonists-in-covid19.jsp>.