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RAGING CONTEMPORARY HEALTH ISSUE: HYPOXIA, COVID AND YOGA

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INTRODUCTION

COVID happened and is still in progression like the onward march of time. Disease happens and keeps changing its shape, intensity and form like changing times. Progressing times confront us with changing emotions, sentiments, comfort or disease levels, happiness and sorrows. The only thing which remains constant is the one which has the element of timelessness. In the backdrop this entire scenario when we search for an entity having this timelessness then essentially 'Yoga Vidya' emerges as the one having this trait. This paper is an endeavour to understand this phenomenon.

All living beings aspire to remain happy and health essentially plays an important role in the same. The lower the organism, the lesser are the health complications. As the organisms progressed so did their multifarious health aspects depending upon the added dimensions. Humans in this aspect are the most complicated beings; we have body, mind and soul. To explain, taking help from Sankhya Darshan, we have at the core of our existence 'Anthakaran' – Manas, Buddhi and Ahamkar. This intertwining of the inner with the outer makes the upkeep of health more complex. It no longer remains mere upkeep of the body for maintaining health and happiness. It requires a cordial coordination among all planes of existence to reach that epitome of happiness and when this happiness reaches the optimum level and defies variations then that status is labelled as 'Ananda' by philosophers and spiritual leaders. But the question is - how to attain this state of art of blissfulness?

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Hypoxia is a physiological condition wherein the “tissues are starved of oxygen”. It is resultant from the lower - than - required presence of oxygen level in blood. It may lead to anoxia, the total annihilation of oxygen presence in the body. The horrors of second wave of COVID in India become livid in our memories when in matter of days the pandemic spread its ‘Tandav’ all over our heartland least distinguishing between the communities, the religions, the regions and the otherwise differentiating strata of social life. Rich and poor, urban and rural, educated and illiterate, young and old all suffered from hypoxia once they got afflicted from the worst colours of COVID. The causes of hypoxia can be multiple but the condition experienced remains by and large the same. Commonly prevalent causes are lower hemoglobin, hypertension, barometric pressures, toxic environment etc.

Hypoxia can have the following dimensions attached to it in the affliction to humans:

The medical world claims hypoxia to be medical emergency and describes the causes attached to it as:

- ❖ Severe Asthma Attack
- ❖ Lung damage due to trauma
- ❖ Chronic obstructive Pulmonary Diseases
- ❖ Pneumonia
- ❖ COVID – 19
- ❖ Pulmonary edema
- ❖ Acute Respiratory Distress Syndrome
- ❖ Heart Problems
- ❖ High Altitudes
- ❖ Obesity
- ❖ Sleep apnea
- ❖ Anemia etc.

Prakash Chintamani Malshe (2010) in his essay ‘Prospects of Application of Yogic Wisdom in Medical Science’ has stressed upon the implications and outcomes of rewards of empirical yogic research in the medical circles. Drawing support from Harrison’s Principles of Internal Medicine (2001) ‘Yoga – “Alternative Medicine” Today, Mainstream Tomorrow!’ he almost makes a predictive declaration about the scope of Yoga in the upkeep of physical health domains. He further quotes the

declaration in this essay, “In a nutshell, time has changed, and we doctors must have fresh look at the things we call as alternative medicine, especially Yoga.”

Dr. Malshe after making detailed observations on the lack of empirical evidences in support of acceptance of Yogic treatment for certain ailments builds the treatise on the differential holistic aspects of Yoga and their effect on human happiness in terms of absence of disease. He lists the practice of ‘Pranayama’ as one of the key yogic practices having the potency to cure many a human ailments including ‘Hypoxia’; if not total cure then at least providing major relief in a helpless situation. To quote him verbatim, he writes, “Since our childhood we have been led to believe that we breathe so as to maintain our oxygen concentration above and carbon dioxide level below a certain acceptable limit. Not at all so!

At Antar Prakash Centre for Yoga when we started testing the breath-holding capacity using oximeter, we learnt that holding breath in full inspiration to utmost limit does not cause any hypoxia. At present we do not have a simple non-invasive technique to measure the Pco₂, but there is reason to believe that if PO₂ is not lowered, the Pco₂ would not be elevated either: After all, carbon dioxide is produced only when oxygen is consumed. The same hemoglobin molecule, when it becomes devoid of oxygen, binds carbon dioxide.”

He builds the treatise that the practice of important yogic practices like Pranayama and Bandas can easily create a situation wherein hypoxia can be utilized as a positive health promoting situation rather than an annihilating experience. He also quotes in support of the practices used in USSR in medical research wherein the availability of “Hypoxicators” is being used in research to find “uses of and ways to produce hypoxia.”

The following are the positive effects of hypoxia:

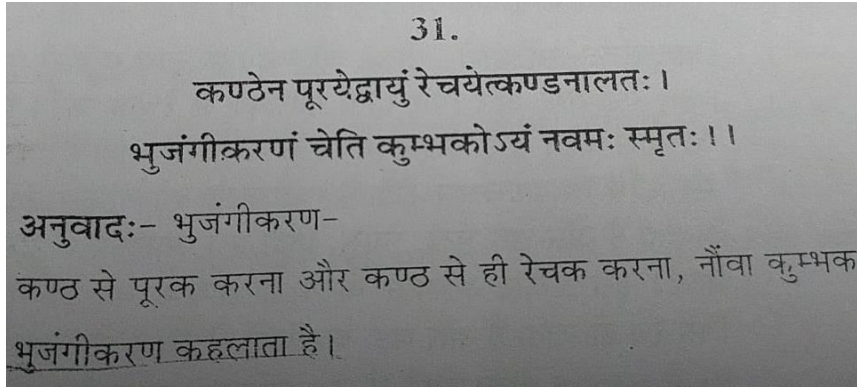
- ❖ Increase of haemoglobin levels through formation of Erythropoietin.
- ❖ Formation of coronary collaterals in ischemic myocardium.
- ❖ Dilation of coronary arteries when needed through induction of NOS (Nitric Oxide Synthase).
- ❖ Increase in resistance of tissues to various insults and injuries including radiation, ageing and injuries.
- ❖ Survival of stem cells.

- ❖ Deep Hatha-Yogic samadhi, like that of the Himalayan range Yogins, creates a hibernation situation which is the result of hypoxia coupled with hypothermia and we all know the exemplary control of life force among these practitioners.

Well performed slow yogic breathing maintains better blood oxygenation without increasing VE (i.e. seems to be more efficient breathing) and reduces sympathetic activation during altitude-induced hypoxia (Bernardi, Passino, Wilmerding, Dallam, Parker, Robergs, Appenzeller; 2001). Caucasian subjects practicing yoga maintain a satisfactory oxygen transport at high altitude, with minimal increase in ventilation and with reduced hematological changes, resembling Himalayan natives. Respiratory adaptations induced by the practice of yoga may represent an efficient strategy to cope with altitude-induced hypoxia (Luciano, Claudio, Giammarion, Maurizio, Luca, Gabriele, Annette, Cornelius, Paul, Richard, Carlo; 2007). There was significant reduction in anxiety and fatigue levels in the participants in comparison with the levels prior to the training. The oxygen saturation levels decreased significantly during training thus confirming a hypoxic environment. The study showed beneficial effects of short term (15 days) regular intermittent hypoxic training through pranayama practice on anxiety and fatigue levels irrespective of age, gender and BMI in normal healthy individuals (Chawla & Joshi, 2020).

These useful situations of hypoxia clearly make a case for its conscious promotion through yogic practices of Bandas, Nadi shodhan and pranayama practices with kumbhaks to turn the tables towards health and longevity of life instead of being unconsciously attacked by it and leading to anoxia and resultant cessation of life. Yoga of this level is definitely a practice of total consciousness and awareness and not just any robotic practice of mechanical series of certain practices. The totality of the complex human faculties need to be the practicing partners in this exercise. The day will not be far when we can turn the tables against COVID and transform hypoxia into the elixir of life rather than a killer condition which attacks us unawares.

Bhujangini Pranayama is one of such practices which can be used to combat this situation. It involves normal breathing of inhale and exhale but through throat only. Chapter 2 verse 31 of Hatha Ratanavali makes a mention of this practice:



PICTURE 1: HATHA RATANAVALI; CHAPTER 2, VERSE 31.

Can Yoga offer solutions to it? Yes, if practiced under seasoned supervision. Yoga has always talked about wholesomeness of human existence. It has never believed in fragmentation as watertight compartmentalization is not the answer to healthy existence. Yoga knew it long time back and tried to share this wisdom with the mankind. The sages and the rishis of the yesteryears passed these gems of knowledge to the generations from time to time and this timeless knowledge stands the testimony of empirical validation in the contemporary age of scientific belief and practice. Its this trait which makes the applied Yoga a state of art timeless knowledge. Practice of Pranayam is the key occupant in the entire practice and preaching of Yoga and it might be surprising to many a persons that this practice can lead to the easing out of situation among the patients suffering from hypoxia.

Thus we know that the practice of this timelessness trait of Yoga can be of tantamount assistance to us in this fleeting phase of time exhaustion. In the annihilating anarchy of time can the timelessness of eternity be created through this Yoga Vidya. The need is to encompass the totality and not fragmented versions or the distorted versions of this grand human knowledge.

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