EFFECT OF PRANA AND VYANA VAYU IN NCDs W.S.R. TO CARDIOVASCULAR SYSTEM

Pritam Moharana¹, Rakesh Roushan²

¹M.D. Scholar, ²Assistant Professor,
Kriya Sharir, CBPACS, New Delhi, India

Email: pritamm.543@gmail.com

ABSTRACT

Non-communicable diseases have tendency to become chronic diseases and are the result of a combination of physiological, environmental behavioral and genetic factors. The main types of NCDs are cardiovascular diseases, cancers, chronic respiratory disease, diabetes and rheumatoid disease. Non communicable diseases kill 40 million people each year, equivalent to 70% of all deaths globally. Cardiovascular diseases account for most NCD deaths or 17.7 million people annually. Evidence shows that 15 million of all deaths attributed to NCDs occur between the ages of 30 and 69 years. Over 80% are estimated to occur in low- and middle-income countries because of stress, Physical inactivity and excess use of alcohol, tobacco and unhealthy diets that can lead to cardiovascular diseases. There are five types of Vata Dosha described in Samhitas. Out of which the Vata which is located in head region is called prana vayu. It controls the function of cardiovascular system, sense organs, psychological activities, reflex activities and intellectual function. All these functions are of brain and brain stem. The site of action of Vyana Vata is heart. It helps in the circulation of blood by controlling the heart. Now a days stress has become a prevalent part of people's life style. This Stress can cause hypertension by increased tone in sympathetic nervous system to produce Catecholamine that increase blood pressure. These functions are happened when Prana Vayu covers the Vyana Vayu and causes cardio vascular diseases. A variety of treatments to manage stress have been found effective in reducing cardio vascular diseases.

Keywords: prana vayu, vyana vayu, avarana, Stress, NCDs,

INTRODUCTION

Non communicable diseases persist for a long period and it is not caused by any infectious agents. Prevalence of cardiovascular diseases among NCDs is the leading cause of death in present era. Stress is one of the most common complaints of patients. Stress is a physical, mental or emotional factor that causes mental tension. Chronic stress causes many medical conditions including psychological conditions such as depression and anxiety and also medical problems like irritable bowel syndrome, high blood pressure and diabetes etc. So stress management is needed badly in prevention of NCDs. Along with stress
there are other factors like sedentary mode of lifestyle, pressure of target oriented work, processed food, excessive use of pungent substances, excessive worry, fear, and terror is the factors which aggravate the Vata dosha and leads to cardiovascular diseases. In Ayurved role of Prana vayu and Vyana vayu is very much important because it controls autonomic functions of heart. Disturbance of prana vayu and vyana vayu causes improper function of heart which leads to cardiovascular diseases.

NON COMMUNICABLE DISEASES:
Non communicable diseases tend to be of long duration which is the result of a combination of physiological, environmental behavioral and genetic factors. According to WHO, the main four types of NCDs are cardiovascular diseases, cancers, chronic respiratory diseases and diabetes. In each year 40 million people are killed through non communicable diseases which are equivalent to 70% of all deaths globally. Most NCD deaths are due to cardiovascular diseases or 17.7 million people annually. Evidence shows that 15 million of all deaths attributed to NCDs occur between the ages of 30 and 69 years. Over 80% are estimated to occur in low- and middle-income countries because of stress, Physical inactivity and excess use of alcohol, tobacco and unhealthy diets that can lead to cardiovascular diseases.

STRESS AND HYPERTENSION:
In these days stress has become a prevalent part of people's life style. Stress is a physical, mental or emotional factor that causes bodily or mental tension. Stresses can be external (from the environment, psychological, or social association) or internal (illness or from a medical procedure). Stress can initiate the fight or flight response. Lucini et.al (2007) suggested that the person who is chronic exposure to stress have an influence on increased blood pressure. Results showed individual who had stronger responses to stressor tasks were 21 % more likely to develop blood pressure increase when compared to those with less strong response. The sympathetic system is especially strongly activated in many emotional states. For instance in the state of rage, which is elicited to a great extent by stimulating the hypothalamus, signals are transmitted downward through the reticular formation of the brain stem and into the spinal cord which causes massive sympathetic discharge. This Stress is responsible for elevation of blood pressure for instance during extreme fight the arterial pressure sometimes rises by as much as 75 to 100 mm Hg within a few second. This is called the alarm or stress response and it provides an excess of arterial pressure.

VATA: THE INITIATING AND CONTROLLING FACTOR:
All functions of nervous system in human beings are represented through Vata in Ayurveda. It is the initiating and controlling factor which is responsible for movement. In general function of vata are to control and co ordination of different part of the body, initiation of all movement, all activities of sense organ, regulation of psychological process and control of respiration, transmission of different sensation, production of speech, secreto motor functions in the gut, expulsion of wastes from the body. Vata has been divided into five types namely Prana, Udana, Vyana, Saman and Apana. Out of these the vata which is located in head region is called prana vayu. It is responsible for the cardiovascular functions, sense organs, psychological activities, reflex activities and intellectual function. All these functions are of brain and brain stem. The active site of vyana vata is heart. It makes the circulation of blood possible by controlling the heart.

AVARANA:
Avarana is one of the basic fundamental concepts in Ayurveda. According to Ayurvediya Shabdakosha, Avarana means ava rodha gati nirodha means i.e. obstruction to the normal gati of vata. All the three doshas circulate all over the body through channels. Out of three, vata having specific property enters the minutest channels of the body. In spite of getting occlusion by pitta, kapha, aam, vata is capable of scattering the pitta, kapha to different body parts and causes diseases by favoring dosha dushya.
samurchhana in occluded srotas. Vata Dosha is getting aggravated by many factors. Avarana is one of them. Total 44 types of avarana have been described in ayurveda. The various type of vata moves in different direction as per its location and function. So the function of one gets obstructed by other. This is called annonyavarana of vata. A slight variation in the path of one vayu may affect the other one which results alteration of the functions as well as diseases. Aggravated subtype of vata occlude mutually and responsible for the indication of twenty types of annonyavarana.

If vata occluded by another powerful vata, then the occluded one i.e. avarya loses its functions. Similarly avaraka is one which occludes the other and there will be increase in its functions. It is also accepted that if avarya is stronger than avaraka then increased symptoms of avarya observed and vice versa.

**RELATIONSHIP BETWEEN PRANA VAYU AND VYANA VAYU:**

Prana vayu is situated in head region and helps in proper functioning of intellect, heart, sense organs and mind. Stress causes the disturbance in the normal functions of prana vayu and also does not reach to its active site. Vyana vayu which is located in heart continuously eject the blood out of the heart and distributes it all over the body. When the disturbed prana vayu covers the vyana vayu there is disturbance in the autonomic functions of vyana vayu. This Stress can cause hypertension by increased tone of sympathetic nervous system to produce catecholamine’s that increase blood pressure.

The causative factor for rasvaha sroto dusti are intake of heavy and cold substance, excess intake of unctuous substance, consumption of excess food, intake of wholesome and un wholesome food together and excessive worry. So there occur diseases of rasvaha srotas like hridroga, jwara, prameha etc.

**DISCUSSION**

Non communicable diseases are spreading day by day like viruses. Out of which cardiovascular disease is the major cause of mortality in India. To reduce the mortality of CVDs we should understand about the causes and pathogenesis of cardiovascular diseases explained in ancient science. Sedentary mode of lifestyle, pressure of target oriented work, processed food, excessive use of pungent substances, excessive worry, fear, terror, use of incompatible food is the factors which aggravate the vata dosha which vitiates the rasa dhaatu that leads to cardiovascular diseases. Vata is the controlling factor in our body. Dhaatukshyaya and Aavarana are the two factors which cause aggravations of vata dosha. Due to mithya aahar and vihaar prana vata is aggravated. So there is variation in the function and pathway of prana vayu. Prana vayu occludes the vyana vayu due to which vyana vayu (the avritta) loses its function. So the function of vyana vayu gets hampered which leads to various cardiovascular diseases.

Discoloration of skin, fainting, fever, cough, dyspnoea, thirst, unconsciousness, vomiting, nausea, pain and anorexia are the symptoms arise in heart diseases. In the present era individuals are overloaded with stress, tension, anxiety and lack of sleep which ultimately affect the heart and cause CVDs. Hence it is very essential to manage these mental factors by prescribing Medhya Rasayan and Yogic practice as described in ancient literature. To protect the heart from disease one should avoid the cause of affliction of mind. One should regularly take diet, drugs and behavior that are beneficial to the heart for the formation of ojas and keeping the vessel unblocked and also makes serenity of mind and knowledge. Svedan, Virechanam, Vaman, and Basti therapies are considered to be beneficial in curing hridroga. Contaminated water, incompatible food, food containing hot, pungent and citric properties, edibles that are heavy to digest is strictly prohibited for the persons suffering from hridroga.
CONCLUSION

According to Ayurveda Sira, hridaya and basti are the three marmas of the body. Among all the marmas, bheda (injury) to these 3 marmas (hridaya, shiras and basti) leads to sudden death. Its injury leads to severe disease manifestation. Hence, these should be especially protected against external injury and vatadi doshas. These marmas have to be protected especially from anila (vata), as vata is the prime factor or cause for the aggravation of pitta and kapha and also it is the cause of prana (life) and is best treated by basti. Hence, there is no treatment better than basti to maintain the marma. Avarana is the key factor in the mechanism of pathogenesis. The function of vyana vayu is to eject the rasa forcefully out of the heart and makes it circulate throughout the body. Prana vayu maintains the proper functioning of buddhi, hridaya, indriya and chitta. When the prana vayu covers the vyana vayu, the function of vyana vayu is hampered and causes cardiovascular diseases. So prana vayu and vyana vayu has an important role in cardiovascular system.

REFERENCES

4. Hall john E.,Guyton and Hall textbook of medical physiology, second south asia edition; Reprint 2012.page no.833

Source of Support: Nil
Conflict Of Interest: None Declared