

Physical Exercise: Perspective in Ayurveda

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Abstract

Ayurveda is an ancient system of medicine and is called as the science of living being. This science has given the concepts regarding healthy living, disease-free and longer life. The burning issue of present scenario is mismanaged life style and its related disorders. As per WHO's data, physical inactivity is responsible for 6% of deaths globally. The two major risk factors of these life style-related disorders are lack of physical exercise and high calorie diet intake especially at late night hours. All these lifestyle-related disorders are nothing but the *santarapana-janyavyadhis* as mentioned in Ayurvedic literatures. These disorders include obesity, diabetes, hypertension, cardiac disorders, joint disorders etc. Understanding the importance of *Vyayama*, both in *swastha-rakshana* and *vikara-prashmana*, all ancient scholars have explained its concept under *dinacharya* regimens for maintenance of health and as a type of *niragnisweda* for the cure of diseases. This article emphasizes on the functional aspect of *Vyayama* to explain how it influences the physiology of human body and pathology of diseases.

Keywords: Ayurveda, *Vyayama*, Physical exercise, Life style-related disorders, *Santarapana-janyavyadhis*

Introduction

Ayurveda is an ancient system of medicine and is called as the *science of living being*. It has two foremost aims – maintenance and promotion of health and curing the disease of a patient.¹ To achieve these aims, *Vyayama* (physical exercise) is one of the most important keys. It is an essential component of Ayurveda system of preventive health care, rejuvenation and longevity. For maintenance and promotion of health of a healthy person, *Vyayama* has been explained among the regimens of *Dinacharya*. For curing the disease of a patient, it has been mentioned as one of the 10 types of *Niragnisweda*, treating the *Kaphajavyadhis* and *Santarpanajanyavyadhis*. A daily routine of proper physical activity affects not only the body but also has positive influence on the mind, emotions, senses and spirit. As per WHO data, physical inactivity is responsible for about 6% of deaths globally,² the reason behind it being the life style of present scenario – their dietetic habits and physical inactivity, are the major risk factors of life style-related disorders. *Vyayama* or physical exercise is very much important in today's life to keep one healthy and free from such disorders.

Aim

Our life style in the present scenario is the root cause of many diseases. For achieving and maintaining good health and preventing and curing such diseases, ancient literature has given the solution by describing the importance of *Vyayama* or physical exercise in achieving our goal.

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Thus, this article emphasizes on the mode of function of *Vyayama* and its impact on the human body in preventing and curing these diseases.

Materials and Methods

All the contents and references regarding *Vyayama* are collected from *Brihatrayi*, *Laghutrayi* and relevant matter described on journals and websites, to explain the influence of *Vyayama* in the physiology of the human body and pathology of diseases.

Concept of Vyayama

Definition of Vyayama

Acharya Caraka defines *Vyayama* in a very scientific way as any physical activity which is desirable and is capable of bringing about the stability in body and increases the strength of body. It should always be conducted in appropriate measure.³ Term *desirable* excludes all the heavy physical work like bearing heavy loads, but includes brisk walking.⁴ Acharya Sushruta defines *Vyayama* as anything which brings about tiredness or exhaustion in the body.⁵

Vyayama for the Maintenance and Promotion of Health, i.e., for Swastha

Vyayama is the most important and unique concept for maintenance and promotion of health due to which it has been described among the daily regimens (*dinacharya*). Acharya Sushruta and Caraka have stated various effects of *Vyayama* on human body.^{6,7} *Vyayama* has major impact on the digestive fire. Through regular *Vyayama*, increased digestive fire performs various functions in the body, viz., it pacifies all the vitiated doshas,⁷ i.e., *kapha* and excessive *medadhatu* and thus, abolishes obesity (*sthaulya*) providing proper shape/curve to the body (*suvibhaktata*).⁶ Secondly, increased digestive fire is so strong that even incompatible diet (*viruddhaahara*) and improperly cooked food (*vidagdha* and *avidagdhaahara*) can be digested without any discomfort.⁸ Thirdly, it digests the *ama-dosha* and pacifies *medo-dosha* resulting in removal of all *avarana* and causes *srotoshuddhi*. This improves *dhatvagni* which leads to proper nourishment to all *dhatu*s and thus causes *shariropchaya*. *Shariropchaya* means proper built of human body in appropriate measure and not the increased weight and volume of body. *Vyayama* causes increased blood circulation and excessive sweating which leads to increased luster of body (*kantigatranama*). In muscles, physical exercise increases tensile strength resulting in compactness and firmness of the body muscle mass.

Muscles of the body in a person become strong enough by regular physical exercise that enemies will not be able to defeat him.⁶ Increased body strength, through regular physical exercise, increases the capacity to tolerate fatigue, exhaustion, thirst, heat and cold.⁶ It provides optimum immunity so that a person does not suffer from any disease easily.

Matra and Kala of Vyayama

Acharya Caraka indicated exercise being performed correctly by perspiration, enhanced respiration, lightness of the body, inhibition of heart and other organs of the body. Acharya Sushruta and Vagbhatta have same opinion about duration of performance of *Vyayama* and should be done up to *balardha*.⁹ During *Vyayama*, when *pranavayu* situated in heart comes out to the mouth (exhalation or increased ventilation) it is called *balardha*.⁹ *Vyayamashakti* is the measurement of *bala* in a person.¹⁰ By performing *Vyayama* regularly, body strength increases and so increases the measurement of *bala* in a person. *Matra*, i.e., *balardha* for *Vyayama* depends upon various factors such as age (*vaya*), body strength (*bala*), place (*desha*), time (*kala*) and type of food intake.¹¹ The intensity of *Vyayama* for child and old age person differs from that for young adult. Body constitution (obese or well figured) also influences one's intensity of doing exercise. Individuals of *sadharanadesha* have more strength compared to that of *anupadesha* to perform *Vyayama* more efficiently. Type of diet intake affects the capacity to exercise. So, a person performing regular exercise should have unctuous diet.¹² *Vyayama* can be done daily with moderate intensity as it consumes only half of maximum strength, whereas other forms of physical exercise like gym and aerobics need breaks due to more consumption of energy.

Vyayama is especially beneficial in winter and autumn seasons.¹³ All ancient scholars have mentioned morning as the most suitable time for doing physical exercise. Reason behind it is that *kaphadosha* dominates in morning hours and *Vyayama* is one of best acts to pacify the vitiated *kaphadosha* at this time. It could also be explained as, after whole night fasting, at morning hours in absence of carbohydrate, fat is available to be burnt and provide energy.

Vyayama for Curing Diseases, i.e., for Aturavikaar Prasham

In Ayurveda, it is said that the root cause of all diseases is *mandagni* (decreased functions of biological fire).¹⁴ This *mandagni* causes improper and incomplete digestion of food producing *Ama-dosha*.¹⁵

which causes *srotorodha*. This pathology results in occurrence of various diseases. Before initiating the treatment, the physician is advised to examine the *vyayamashakti* or capacity of one's physical exercise which gives an idea about the *bala* of the patient.¹⁶ It is one of the treatments prescribed in Ayurveda for all *kaphajavyadhis* and *santarapanajanyavyadhis*.¹⁷

Acharya Caraka mentioned that avoidance of physical exercise leads to *pramehavyadhi*.¹⁸ Acharya Sushruta stated that nothing is better for reducing *sthaulya* (obesity) other than *Vyayama*.¹⁹ These diseases are directly related to each other as both these are *kaphaja* and *medajavyadhis*. *Vyayama* being counted as best among the 10 methods of *niragnisweda*, powerfully pacifies the disturbed *dosha* of these diseases. Sweat (*sweda*) maintains the normal fluid and electrolyte balance in the body. *Sweda* is the waste product of *medadhātu* and roots of *swedavahasrotas* are *meda* and *roma-kupa* (body hair pores).^{21,22} These *srotas* get obstructed when *jatharagni* and *dhatvagni* get imbalanced.

Vyayama (*niragnisweda*) produces heat in the body; this heat improves *jatharagni* (digestive fire) and the *dhatvagni* which burn the accumulated fat (vitiated *medadhātu*) in the body. The produced sweat oozes out through small channels/pores over the whole body with abolition of obstructed *srotas*. This produces lightness, softness in body and smoothens the skin. Burning of fat improves BMI of an individual which is the measurement of healthy body. *Vyayama* is most helpful in prevention of psycho-somatic disorders²³ with improving psychological well-being and directing soma in positive direction. Exercise leads to creation of new neurons (brain cells) in critical areas of brain.²⁴ This makes the brain more active and enables better memory and concentration and also pacifies mental illness. It is found that implementation of *Vyayama* is important for prevention and management of other chronic diseases like joint disorders, hypertension, obesity, depression, mental stress and cardiac disorders.³⁰

Consequences of Overindulgence in Exercise

Atiyoga of anything leads to diseases, whether *ahara* or *vihara*.²⁵ Excessive physical exercise causes exertion, exhaustion and depletion of body tissue, thirst, bleeding disorders, *pratamaka* (breathing difficulty), cough, fever, vomiting.²⁶ Caraka gives emphasis on proper exercise and mentions that one who indulges in *Vyayama* beyond the body capacity, the person perishes suddenly just as the lion which tries to vanquish an elephant by force suddenly.²⁷

Contraindications of Vyayama

Vyayama is contraindicated for persons suffering from *vataja* and *pittajavyadhis*, in child (below 10 years) and old age (above 70 years), pregnant women, after taking meal. A person of *vatika* constitution, one who is suffering from hunger, thirst, *raktapitta*, *rajyakshma* (TB), *shwasa* (dyspnea), *kasa* (cough), *ematiated* from excessive sexual activity, suffering from *ajeerna*, fever should abstain from *Vyayama*.²⁸ It is also contraindicated for those who are in grip of anger, emotional distress, grief (*dukha*), fear (*bhaya*), lean and thin and whose routine work includes enough physical activity.

Discussion

The burning issue of present scenario is life style-related disorders. These disorders include diabetes mellitus, obesity, hypertension, cardiac disorders, atherosclerosis, joint disorders and other metabolic and psycho-somatic disorders. The major risk factors behind these disorders are lack of physical exercise and high calorie diet intake, especially at late night hours.³⁰ The life style of present era is totally different from that told by ancient scholars and which has given birth to all these *santarapanajanyavyadhis*. As per data presented by WHO, physical inactivity is responsible for 6% of deaths globally. Because of many benefits of physical activity for health, recent analysis has suggested that reaching the recommended minimum level of physical activity compared with no activity was found to be a reduction in all-cause mortality of 19% and this rises to 24% if an hour a day is spent in physical activity.²⁹ *Vyayama* is also beneficial for mind and spirit as it enhances mental alertness, mental strength, enhances focus and ability to concentrate, emotional equilibrium and ability to cope with stress.³⁰ One can avoid diseases and live longer and healthy if one performs physical exercise regularly.

Conclusion

Vyayama is an essential component of Ayurveda dogma for preventive health care, rejuvenation and longevity. Lack of physical activity or *Vyayama* is directly related to various physical and mental disorders. In Ayurvedic system of medicine, it is well described how *Vyayama* can help to grapple these life style-related disorders and its authenticity is proved by various modern researchers too. So, one can achieve healthy and longer life by performing *Vyayama* in daily life.

Conflict of Interest: None

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