



Rate of Consumption of the Pills can be Fall Down! – By Adopting Physical Exercise

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Abstract-- The people are already very much undergoing of allopathic medicine due to different disorders across the Globe. One of the major health problem is metabolic disorders where the rate of consumptions of pills is more. This burden of consumption allopathic medicine is again increased much more during currant scenario which is occurred by COVID-19.

By consuming many allopathic medicine, there is lots of burden which is not only it hamper the health of particular person who is consuming it, but also it is hampering over the modern health system, i.e. there is very horrible situation is happening in the current scenario due to COVID-19 crisis.

As Ayurveda is the ancient science & also known as the science of the life. Ayurveda does not only tell about the how, one can cure the diseases it also tells about how someone can be leave healthy without diseases. i.e. the objectives of the Ayurveda are as, “*swasthasya swasthy rakshanam, & aturasya roga prashamanam cha*”.

So, Ayurveda could be helpful over this worst situation (low down the rate of consumptions of pills)? How it can be? It will be explored over here. In other word, Ayurveda, could be very effectively, low down the consumption of pills (i.e.modern medicine). There are many solutions over this problem, such as by eating healthy food, avoiding the junk food, following the dincharya (daily routine), rutucharya (following seasonal regimine), seasonal purification, taking mental care etc & many more.

The “*swassthasya swasthya rakshanam*” to prove this principle fruitful one should be aware of, what is Physical Exercise? What are symptoms of appropriate physical exercise?

What are adverse effects of Physical Exercise? What is the required time period to do exercise? To whom physical exercise is not allowed?

Keywords-- *Burden of consumption of pills (modern medicine), Vyayam (physical exercise), Ayurveda as solution for low down rate consumption of pills, features of appropriate physical exercise, benefits of Physical exercise, adverse effect of exercise etc.*

I. INTRODUCTION

The people are already very much undergoing of allopathic medicine due to different disorders across the Globe. One of the major health problem is metabolic disorders where the rate of consumptions of pills is more. This burden of consumption allopathic medicine is

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II. WHAT IS HEALTH? “AS PER AYURVEDA”

Wagbhata says about health, so health is defined as pleasant sensation in body & mind i.e. *sukha sanghyakam aarogyam*’.

The health definition is explained by Acharya Sushruta in sutrasthana 15/41;

“*samadosha sama agnisch sama dhaatu malah kriyah, prasanna aatmendriyah manah swastha iti abhidhiyate*”

It means the equilibrium or homeostasis of not only three doshas, appropriate functioning of digestive fire, appropriate functioning seven dhaatus & three malas, but also there must be pleasant sensation in mental factors like happiness in soul, five sense faculties.

III. WORLD HEALTH ORGANIZATION’S DEFINITION

“Health is a state of complete physical, mental and social well being and it not merely an absence of disease or infirmity”.

The world definition of health has been criticized as being too broad. Some argue that health cannot be defined as a state at all but must be seen as a process of continuous adjustment to the changing demands of living and of the changing meanings we give to life. It is dynamic concept, it helps people live well, work well and enjoy themselves.

A. What is Physical Exercise?

1. In Ayurveda(*Charaka Samhita*) physical exercise is defined as, in Charak Sutrasthan 7/31 it is stated that; the activity of the body which is meant to increase its firmness and the strength is regarded as



physical exercise, it must be practice in right measures.

2. Dictionary meaning of exercise is as,

To subject to drills, systematic movements etc, so as to train or develops troops, muscles, the mind etc. or to make habits of used reflexively or in the passive to be exercised in good works. Or one who occupy the mind of especially to make anxious. Or one who have to undergo training.

B. What are symptoms of appropriate physical exercise?

Any persons can be performing the physical exercise no doubt about it; but up to how much time period? What are the physical sign & symptoms? Where he or she cannot exceed the physical exercise? One must know the answers for all these questions.

The symptoms of perfect of appropriate physical exercise has been explained by Acharya Charka as, in chaarak sutrasthan 7/33(1) it states that;

“The appearance of perspiration, increased respiration, lightness of limb and a feeling of oppression in the cardiac region indicates the full measures of physical exercise”.

C. What are the benefits of exercise?

While explaining the benefits of exercise Carakcharya has mentioned in Chaarak sutrasthan 7/32 it indicate that;

1. Lightness-due to improvement of circulation lead to removal of waste material from our body which has been hidden deeply in the tissues in the form of sweating by increasing BMR.
2. Capacity of work- due to utilization of fresh oxygen & removal of carbon dioxide, other toxins & waste materials, all the body organ improves their functioning.
3. Firmness – blood glucose is being utilized to build the more protein in muscles it improves the firmness & strength.
4. Tolerance to hardship – protein anabolism leads to improve the disease tolerance & immunity.
5. Subsidence of humeral discordance- due to improved blood circulation BMR will also improve it leads to improvement of hormonal co-ordinations.
6. Stimulation of gastric fire accrues form exercise- after removing dirt, toxins, waste material from our body all organs functions will get improved specially digestive stimulated appropriately.
7. Ayurveda says; one who are always indulging with proper exercise that can be able to digest even though toughest food like stone also.

D. What are adverse effects of Physical Exercise?

Adverse effects of physical exercise can be seen who is performing physical exercise beyond the limits, symptoms are explained by Acharya Charaka in sutrasthana 7/33.

That is physical exercise should in the proper or appropriate amount, if it does not happen in appropriate amount it affect adversely on our body which leads to become cause for various diseases as;

1. Fatigue- due to increased BMR leads to burning of all energy leads to tiredness in muscles as well as in body.
2. Exhaustation- due to higher BMR, excessive heat is produced it leads to temperature will be lost with water & electrolyte.
3. Wasting- excessive exercise leads to burning of not only carbohydrate & fats but also it will causes to burn protein also these leads to wasting.
4. Heamothermia- due to increase in BMR leads to increase in temperature.
5. Dyspnea (Asthama)- due to excessive loss of body tissue and also due to heavy exercise the respiratory rate as well as heart rate is goes on increasing leads to hyper functioning of Respiratory & cardiovascular system.
6. Cough- during heavy exercise the respiratory rate is goes on increasing leads to hyper functioning of Respiratory system.
7. Fever- this symptoms indicates the red signal for to stop the exercise, if it persist continued leads to symptoms become worst.
8. Vomiting- it worst symptoms due to excessive exercise leads to contraction or convulsion like mechanism in smooth muscles as well as skeletal muscles.
9. These are results from over exercise or sign & symptoms seen after performing physical exercise beyond limits. These are the symptoms are explained in increasing symptoms in the order or becoming the worst one after another. So, one must be aware about to have appropriate exercise.

E. To whom physical exercise is not allowed?

Some people or some conditions where exercise cannot be carried out which are explained by Caraka in Charaka Sutrasthana 7/34(1/2) as follow; as contraindication for physical exercise.

Sr No .	Habits/behaviour	Mental factors	Age factors	Diseases conditions
1	Who is emaciated by over exercise	Who is always way fearing	Who is in tender age,	Who are afflicted with hunger



2	Who is always indulging with sex act	Who is afflicted with anger	Who is in advanced in age	Who are afflicted with thirst
3	Who is always load carrying	Who is afflicted with Grief		Progressive conditions in all disease.
4	Who is always indulging with vata-dosha aggravating habitues	Who is afflicted with toil?		
5	Who had given to loud and much talk			

IV. DISSCUSSION

The people are already very much undergoing of allopathic medicine due to different disorders across the Globe. One of the major health problem is metabolic disorders where the rate of consumptions of pills is more. This burden of consumption allopathic medicine is again increased much more during current scenario which is occurred by COVID-19.

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Ayurved has two goal to achieve i.e. One is the “*swassthasy swasthya rakshanam*” & another is; *autrasya vikar prashamanam cha*” to prove this principle fruitful, topic is discussed over her by having explanation over the vyama its utility over this present scenario of COVID-19 crisis. i.e. What is Physical Exercise? What are symptoms of appropriate physical exercise?

What are adverse effects of Physical Exercise? What is the required time period to do exercise? To whom physical exercise is not allowed?

In modern physiology, there are insulin enzyme receptors called Glut4, Gult2 etc. which are helpful to internalise the free sugar which is present in the blood (blood sugar) in to the cells.

Usually, out of these receptors, Glut 4 receptors are presents predominantly in the muscles cells & Glut 2 are present in the small intestine (GIT) cells as well as the they are also present in the liver cells. After exercise these receptor become activate more & more, due to this reason, they utilisation blood sugar by the body cells occurs more & more. So the blood sugar is also

maintained, which is the one of the worst factor which hamper as a worsening effect on COVID patient have been observed in present COVID-19 crisis.

After this increased utility of blood glucose by cells (increased internalisation of glucose by cells due to exercise) leads to glucose is converted in to protein & fat & after it stored as the strength for muscles (insulin anabolic effect) which also helps to the build the immune factors of the body & enhance the immunity which certainly help to fight against COVID -19.

Another important mechanism is, due to appropriate exercise the there is flow blood increases towards the body tissues. In this way if someone is habituate to proper exercise, oxygen level to the each tissue will occurs in appropriate way as well as at the same time impurities, toxins, metabolic wastages which are produced by cells during metabolic activities will be expelled out form the liver, kidney, skin & lungs.

This all causes not only for enhancement of the healthiness in all tissue, but also enhancement of repairing (unhealthy tissues) of body tissue occur; in this way certainly the swasthasya swasth rakshanama this goal of Ayurveda could become fruitful.

CONCLUSION

By exercise the consumption of modern pills could be lowered by following way;

1. After exercise these insulin receptor become activate more & more, due to this reason, they utilisation blood sugar by the body cells occurs more & more. So the blood sugar is also maintained, which is the one of the worst factor which hamper as a worsening effect on COVID patient have been observed in present COVID-19 crisis.
2. After this increased utility of blood glucose by cells (increased internalisation of glucose by cells due to exercise) leads to glucose is converted in to protein & fat & after it stored as the strength for muscles (insulin anabolic effect) which also helps to the build the immune factors of the body & enhance the immunity which certainly help to fight against COVID -19.
3. Another important mechanism is, due to appropriate exercise the there is flow blood increases towards the body tissues. In this way if someone is habituate to proper exercise, oxygen level to the each tissue will occurs in appropriate way as well as at the same time impurities, toxins, metabolic wastages which are produced by cells during metabolic activities will be expelled out form the liver, kidney, skin & lungs.

Ayurveda & the concept (principles of Ayurveda), must be reach to the every corner of not only throughout the India but also it must be reached across the Globe. It is also the cost effective management, so it also makes balance on economy of India.



References

- [1] Charak Samhita, R.K. Sharma & Bhagawandas, Reprint, 2011, Chaukhamba Sanskrit Series Office, Varanashi.
- [2] Sushrut Samhita, First Edition, 2001, Anant Ram Sharma, Chaukhamba Surabharati Prakashana, Varanasi.
- [3] Astang Samgraha (English commentary) Prof K R Srikanth Murthy, Chaukhamba Orientale, K 37/109, Gokul Bhavan , Gopal Mandir Lane, Varanashi – 221001, India.
- [4] Astang Hrudaya (English commentary) Prof K R Shrikanth Murthy, Chaukhamba Orientale, K 37/118, Gokul Bhavan , Gopal Mandir Lane, Varanashi – 221001, India.
- [5] Kashyapa Samhita (English Commentary) First Edition, Dr P.V. Tiwari, Chaukhamba Viswabharati, Varanasi.
- [6] Kashyap Samhita Pandit Hemraj Sharma with Vidyotini hindi comentory, 2004 edition, Chaukhamba Sanskrit Sansthan, K-37/116, gopal Mandir Lane, Varanasi-221001, India.
- [7] Human physiology in Ayurved, Dr.Kishor Ptawardhan, Reprint, 2008, Chaukhamba Orientalia, Varanasi.
- [8] Dr. Jayram Yadav, Dr.Sunil Varma & Dr. Jayram Yadav, First Edition, 2009, Chaukhamba Orientalia, Varanasi.
- [9] The Fundamental Principles of Ayurved, Dr. C Dwarkanath, Reprint, 2003, Chaukhamba Krishnadas Academy, Varanasi.
- [10] Auyrvediya Kriya Sharir, Shiva Kumar Gauda, New Edition, Natha Pustaka Bhandara, Rohatak.
- [11] Text book on Ayurvedic Physiology, Dr. S.B.Kotur, First Edition, 2007, Chaukhamba Orientalia, Varanashi.
- [12] Sharir kriya Vidnyan, Dr.Nandini Dhargalkar, First Edition, 2008, Chaukhamba Sanskrit Series Office, Varanasi.
- [13] Ganongs Review of Medical Physiology, 23rd Edition, reprint 2010, Kim S. Barret, Susan M. Barman, Tata Mcgraw Hill Education, Pvt Ltd, New Delhi.
- [14] Practical Clinical Biochemistry, Ranjana Chawala, 3rd Edition, Reprint, 2008, Jaypee Brothers Medical Publishers.
- [15] Essential Medical Physiology, K Sembulingam & Prema Sembulingam, 7th edition, Jaypee Brothers Medical Publishers (P) Ltd, 4838/24 Ansari road Daryaganj, New Delhi-110002, India.
- [16] Text Book of Preventive & Social Medicine, K Park 24th edition, 1167 Prem Nagar Nagpur road, Jabalpur-482 001, India.
- [17] Human physiology, C.C.Chatterjee, Medical Allied Agency 13/1B old Ballygunge 2nd lane Calcutta-700019.
- [18] The Concise Oxford dictionary, Judy Pearsall, 10th edition, Oxford university press, YMCA Library building, Jaisingh road, New Delhi – 110 001.
- [19] A Textbook of practical Physiology, Reprint, 2010, C.L.Ghai, Jaypee Brothers Medical Publishers, New Delhi.
- [20] Textbook of Medical Physiology, Indu Khurana, Reprint, 2013, Elsevier, Division of reed Elsevier India Pvt Ltd,
- [21] Textbook of Medical Physiology, Guyton & Hall, 11th Edition, Reprint 2008, Elsevier, Division of reed Elsevier India Pvt Ltd, Noida, Delhi.
- [22] Anatomy & Physiology, Gerard Tortora, Reprint, 2016, 2015 Wiley India, Pvt Ltd, New Delhi