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## Conceptual Study of Sports Medicine in Ayurveda: A Review

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### ABSTRACT

*Ayurveda* is science of life. Sports medicine is a branch of medicine that deals with physical fitness and the treatment and prevention of injury related to sport and exercise. *Ayurvedic* medicines have potent action in acute and chronic injury. Sports medicine are always difficult to define because it is not a single specialty, but an area that involves health care professionals, researchers and educators from a wide variety of disciplines. Its function is not only curative and rehabilitative, but also preventative, which may actually be the most important one of all.

### KEYWORDS

*Sport, Preventive, Medication*



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## INTRODUCTION

Sports is defined as an activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment. According to Cambridge dictionary a game competition or an activity needing physical effort and skill that is played or done according to rules for enjoyment and or as a job is called as sports.

Sports medicine is called as sports and exercise medicine. It is a branch of medicine that deals with physical fitness, treatment and prevention of injuries to sports and exercise. Although most sports teams have employed physicians for many years. It is only since the late 20<sup>th</sup> century that sport medicine has emerged as a distinct field of health care.

**Sport medicine in ayurveda [concept of *Kreedayurveda*]:** The word *krida* means *khele* which means to play or sport or have pleasure or amusement. *Ayurveda* is that branch which deals with the science of life of medicine. Hence sports medicine can be coined as *kreedayurveda*. This word is not found in the *brihat trayees* and *laghu trayees*. It is newly coined word. It deals with the science of life of a sports person or science of medicine of an athlete. *Kreedayurda* is that branch of *ayurveda* which deals with the *svasthya samrakshana*

*charya* and performance improvement of a person who engages himself in sports, exercise and other physical activities for the sake of *dharma* or *kama* of *artha*. It also deals with the management of conditions arising out of trauma or fall during the events. There are 3 words used for sports medicines:-

1- *Ayasa*- It is a physical activity without any predetermined benefit for the body. Eg. Putting a load of heavy box on the top of shelf. Here there is no predetermined benefit either for the body or mind.

2- *Vyayama*- It is a physical activity for getting strength. Eg. Climbing the stairs up daily. Here it is to strengthen calf and thigh muscles and to decrease the obesity. Some may find it interesting and may have fun in climbing the stairs.

3- *Kreeda*-It is an intense physical activity done for pleasure Eg. Running race. It is kept as a competition for sake of pleasure. While running *vyayama* occurs. But here, the physical activity is done with an intense enthusiasm so that he/she shall secure the top position.

### Origin of sports medicine:

A complete analytical scan of our ancient epic *Mahabharata* reveals that the concept of sports medicine was first sprouted in India. *Mahabharata* on an analytical aspect can be compared as a sports event. The most important only exception is that while



*Mahabharata* war was performed only establishing *dharma*, sports is being played for fun. But all other aspects are similar. There is a preparative phase for the war, which can be compared with the training phase of the athlete. The main battle phase can be compared to the incidences of injuries. There are descriptions in *Mahabharata* that a troop of king, army, attenders, surgeons and physicians used to move to the place of war.

### **Sports medicine in India:**

Indian association of sports medicine (IASM) was established in 1971 at national institute of sports (NIS), Patiala. The IASM got affiliation from international sports medicine federation in 1972 at Munich Olympic games. The main activities of IASM are:

- 1- To guide and assist physical fitness among people.
- 2- To provide scientific guidance and assistance to sport fraternities the medical health issues aspects in sport training.
- 3- Care of sportsmen before and after competition.

### **Selection of people to sports:**

*Ayurveda* physicians can examine and select the persons. Sports people are those who need to face tough situation with regards to physical exercise, environment, food and water, journey, sleep and direct traumas during the active events. Hence,

selection of a person to sports activities is done under two criteria:

A. Examination of *sara*– Examination of *sara* becomes the 1<sup>st</sup> baseline for selection of sports people. This is because *sara* determines the nature of a person.

B. Examination of *bala* :-Once, the *sara* is observed and candidates coming under high suitable category is selected, next step is examination of their *bala*. Their *bala* is examined in the following manner:

- Examination of the physique: People who have proportion and well built musculature can be considered to have excellent *bala*.
- Examination of the sense organs: people who are have anatomical and functional sound sense organs.
- Examination of tolerance: people who can tolerate hunger, thirst, cold, hot sun and the stress of physical training.
- Examination of *Agni shakti*: People who have good *agni bala* can be considered to have an excellent *bala*.

### **Sports as a Treatment in Ayurveda:**

These sports activities are used as treatment in few instances in the classical textbooks of *ayurveda*. Few of them are given below:-

#### ***Kaphaja vyadhi chikitsa in general:***

*Kapha* by its very nature is *snighda* and *sthira*. *Vyayama* is opposite to it. i.e. *rooksha* and *chala*. Hence, performing



vyayama will definitely increase the rooksha and chala guna, i.e. it will decrease the kapha. In other words, it can be given for the conditions where, kapha has got vrudhhi or kopa, i.e. it can be used in kaphaja vyadhi chikitsa. In Astanga sangraha various forms of physical activities are mentioned. Along with regular physical exercise various other sport activities are mentioned.

- *Dhaavana* (Running, Jogging, Brisk walking can all be taken under *dhaavana*)
- *Plavana* (Swimming).
- *Niyuddha* (Wrestling, all kinds of marital arts without using weapons can be included here).
- *Yuddha* (martial arts with weapons can be taken under *yuddha*)

Now *Santarpanjanya vyadhi* are generally *kapha kupita vyadhi*. Hence *vyayama* and these *kreeda* are also advised in such *santarpanjanya vyadhis*.

***Kaphavruta vata dominant vata rakta:*** In *vata rakta*, where *kapha* has created an *avarana* to the *gati* of *vata*, exercise can be prescribed as a medicine.

***Urustahambha chikitsa:*** *Urushambha* is a disease mentioned in *ayurveda* where *ama* gets *sthana samsraya* in the thigh region. This makes the person unable to move his thighs. Here the basic cause is aggravation of *kapha* and *ama* in the thigh region. Both

these are *snigdha*, *picchila* and *sthira* in nature. Hence to decrease these opposite *gunas* of *rooksha*, *vishadha* and *chala guna* should be provided which can be aptly received through *kreeda*.

The patient should be advised exercises according to his ability. They should be made to walk on ground with sand and gravel in the morning. The patient should be made to swim frequently against the current of a river with cold water but harmless and free from dangerous aquatic animals. He may also be advised to swim frequently in a pond having clean, cold and stable water.

***Sthaulya chikitsa:*** sports and exercise medicine is the treatment of *sthaulya*. There is no other medicine as best as exercise. *Sthaulya* is the condition due to increased *kapha* and *medas*. Performing exercise will definitely help to reduce the *kapha* and excess *medas*.

***Karshya chikitsa:*** Exercise is also treatment for *karshyatva*. This may feel as contradictory, but in fact optimal *vyayama* always help in *karshya chikitsa*. It is because by during exercise *agni* increases. This *agni* will digest and assimilate all the food items taken thereby increasing in size.

***Prameha chikitsa:*** Diabetes is disease which is spreading like a poison everywhere. India has become the diabetic city with kerala as the diabetic capital. The



basic and foremost cause for diabetes is the absence of exercise and other physical activities. Hence exercise or sports medicine is the best treatment for it. *Acharya Charka* has mentioned that, different types of sports will definitely cure *prameha*.

**Majja shukra gata vyadhi chikitsa:** *Vyayama* is the best treatment for diseases which have *sthana samraya* or *moola in majja* and *shukra dhatu*. By doing *vyayama*, *vata anulomana*, *sroto shodhana* occurs and *agni* gets *deepti*. By this *kapha avarana* in the *rasa dhatu*, if present is lost. This will help in immediate production of *shukra*, as it is produced from the *rasa* which is running throughout the body. Hence this *shukra* is even seen throughout the body.

Decrease of *majja dhatu* results in *bhrama*. *Bhrama* is caused due to the decreased hemoglobin. When *vyayama* is done, the mild hypoxia will stimulate erythropoiesis will help in increasing the blood count. *Asthi* being a *vata sthana* gets activated by *vyayama*. This will help in increased *tusti* of *asthi dhatu*.

**Exercise and Bone mineral density (BMD):** There is a significant correlation between muscle strength and bone mineral density. There is evidence that strengthening exercises may lead to an

increase in the mineral density of the bones to which the muscles are attached.

**Kaphaja madatyaya chikitsa:** *vyayama* is also prescribed as a treatment for *kaphaja madatyaya*.

## DISCUSSION

The ancient medical system called *Ayurveda* is one of the main systems of alternative medicines of Indian origin. This is found very practical even in the modern era of medicines due to its unique unbeatable philosophy. We cannot observe any branch of modern system of medicines containing the explanations of sports medicines two centuries ago and obviously the same lack in the literatures of *Ayurveda*. But the field of medicine is becoming more and more interdisciplinary in nature in this modern era of medicine by incorporating the knowledge from different fields. The field of sports medicines as a separate department was developed recently in the modern medicines. Thus practitioners of *Ayurveda* also started using the term sports medicines and selected many classical time proven formulations that were found suitable for prescribing for sports injuries of the modern world.

## CONCLUSION

Sports medicine, as a separate medical specialty in medicine filed. *Ayurved* act as



preventive and curative both side, so it is best science which play major role in sport medicine. As we go through the Ayurvedic literature, there is no direct references regarding sports medicine. Even there is no ready-made management plans regarding sports related things. As we do not get direct reference therefore most of people conclude that “Ayurveda has nothing to do with sports medicine”. But when we observe with open minds with curious scientist, we find enormous things. From dincharya to achar Rasayana each and every thing plays important role in sport science. If we carry out a systematic research then Ayurveda could revolutionize & contribute to a larger extent. There are seven dhatu (body-tissues) that give form and shape to the human body. In sports medicine mansa (Muscles), asthi (bones) are main dhatus & snayu (ligaments), kandra (tendons) are upadhatu which deals with sports injury.



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