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#### K Agrawal

Assistant Professor, Shri Krishna Ayurvedic Medical College, Varanasi, Uttar Pradesh, India

# Pharmacotherapeutical application of ayurvedic drugs as sport medicine

# **K** Agrawal

#### Abstract

Sports medicine, also known as sport and exercise medicine is a branch of medicine that deals with physical fitness and the treatment and prevention of injuries related to sports and exercise. Although most sports teams have employed team physicians for many years, it is only since the late 20th century that sports medicine has emerged as a distinct field of health care. Ayurvedic drugs can also in sport medicine by formation dhatu as *jivaniya* (vitaliser), *Ayusya* (lifepromoter), *Sandhaniya* (Union promoter), Balya (Tonic), *Rasayana* (Promotive therapy) and *Angmardaprasamana* (Drug for malaise and discomfort).

Keywords: sports medicine, Rasayana

#### Introduction

Jivaniya (vitaliser), Ayusya (lifepromoter), Sandhaniya (Union promoter), Balya (Tonic), Rasayana (Promotive therapy) and Angmardaprasamana (Drug for malaise and discomfort) drug is well reported in Ayurveda since Samhita period [1, 2, 3]. In original classics of Ayurveda i.e. Caraka and Susruta Samhita this type of drug mentioned at many places respectively. Sports medicine is a branch of medicine that deals with physical fitness and the treatment and prevention of injury related to sport and exercise [6]. "Ayurveda has nothing to do with sports medicine". But when we observe with the open mind with curious scientist, we find enormous things and if we think in right direction then above mention drug in Samhita of Ayurveda can be used as sport medicine.

#### **Material and Method**

Comprehensive review of *charaka*, *Susruta*, *Astanga* and other *Samhita* certain drugs and groups of drug can be used as sport medicine are critically analysed, discussed and concluded.

## Observation

*Jivaniya* dravyas: The drug promoting vitality are called *jivaniya*. Ten important vegetable drug are enumerated under this mahakasaya are *jivaka*, *risabhaka*, *meda*, *mahameda*, *Kakoli*, *Ksirakakoli*, *mudagparni*, *masaparni*, *jivanti* and *madhuka* respectively. It is well known that drug mentioned under *jivaniya mahakasaya* are not easily available and also endangered now a day. Because these drug have great potency and efficacy. There is regular loss of energy during extra physiological process in sports going on inside body and these drugs maintain this energy loss through increase metabolic process. Milk is considered best among *jivaniya dravya* [1, 3, 4].

**Brighaniya dravya:** These drug promote body strength of sport person by nourishing muscular part and anabolic activity of body. The major part of body is made up of muscles so, these drug promotes the *mansa dhatu* i.e. muscle of the body eg *mansa*, *Aswagandha*. Thus increase muscle strength of sport person.

**Svayathuhara Dravya:** Caraka has mentioned the drugs of *Dasamula* under *Svayathuhara Maha Kasaya* which is used in swelling and inflammatory injury of sport person. It is include ten drug like *bilva*, *agnimantha*, *gambhari* etc.

Correspondence K Agrawal Assistant Professor, Shri Krishna Ayurvedic Medical College, Varanasi, Uttar Pradesh, India **Lekhaniya dravya:** The drug that maintain body lean and thin along with feeling of lightness are called *lekhniya drugs*. These drugs are used for maintaining lightness and activeness in sport person eg. Vaca [1, 3, 4].

Ayusya (Life promoter) the drug under this group providing long life span and act as antioxidant eg *Amalki*, *dugdha* <sup>[1]</sup>. Sandhaniya (Union promoter) this drug helpful in uniting the

Sandhaniya (Union promoter) this drug helpful in uniting the fracture or interrupted *rasa, rakta, mamsa, asthi* etc *dhatu* are known *Sandhaniya*. Concussion, muscle cramp, ACL (the anterior cruciate ligament) sprains/tear, ankle sprain, shin splints, muscle strains or fracture is common sport injury <sup>[5]</sup>. These drug can be used in all type of sport injury <sup>[1, 3, 4]</sup>.

Balya (Tonic) these drugs promote general strength of body eg *Kapikachhu*, *Shatavari*. These drugs increases the strength of sportsman. In absence of *balya* body unable to perform its activity  $^{[1,3,4]}$ .

**Rasayana** (**Promotive therapy**): The drug producing excellent *dhatus* are called *rasayana* it prevents and alleviates senility and diseases so also called Vayasthapana that maintains youthful age of sportsman. *Rasayana* is also called *vyadhinasana* because of averting senility and disease. Due to enhancing inner strength and eliminating external factor responsible for diseases [1, 2, 3, 4].

**Angmardaprasamana:** The drugs overcoming malaise and discomfort are called as *angmardaprasmana* i.e. drug of *laghu panchmula Kakkoli* etc. *Angmarda* is cardinal sign of vartika disorder which is manifested specially in stage of wasting and heavy exercise of sport person These drug have opposite properties to vata so strength promoting and alleviate malaise [1, 3, 4].

#### Discussion

In India around 20,000 medicinal plant species have been recorded and more than 500 traditional communities use about 800 plant species for curing different diseases (Kamboj, 2000). Realizing the importance of medicinal plants as a natural source of newer medicines, now the world is moving towards the plant based medicine or phytomedicines that repair and strengthening bodily systems (especially the immune system, which can then properly fight foreign invaders) and help to destroy offending pathogens without toxic side effects. In the last few decades there has been a global upsurge in the use of traditional medicine and complementary and alternative medicines in both developing and developed countries. World Health Organization has estimated that, 80% of the world's population depends on traditional medicines for their primary health care. The World Bank estimates world trade in medicinal plants and related products at US\$ 5 trillion by 2050. The Indian medicinal plant market is nearly Rs. 5000 crores, which is having an annual growth of 14%. This data shows global as well as national market trend favoring growth in the medicinal plant sector which ultimately will uplift the economy of a country. Hence there is a need to address this issue at priority level for the use of medicinal plants for health care of the people as well as economic growth at large (Joshi, 2010). Seers of Ayurveda have expounded and established various rational fundamental concepts regarding the knowledge of life process, health and diseases. Sports medicine doctors work with athletes on a variety of issues in multiple settings. Sports medicine doctors are either orthopedic surgeons or primary care physicians who prescribe treatments for professional and amateur athletes. They're trained to address issues associated with nutrition, sports psychology, and substance abuse and may also counsel

athletes on injury prevention. In addition, they sometimes focus on special groups of people, such as young children or the elderly. Typical job duties include diagnosing and treating athletic injuries, designing treatment and rehabilitation strategies, consulting with patients about their recovery progress and prescribing medication when necessary. In whole process Ayurvedic drugs and procees can be used like Jivaniya as vitaliser, Ayusya as lifepromoter, Sandhaniya as Union promoter in injuries, Balya as Tonic, Rasayana as Promotive therapy, Angmardaprasamana as drug for malaise and discomfort and many more. Owing to various side effects of allopathic/synthetic medicine, plant based medicines are gaining popularity in world market as a whole and this can also be used as sports medicine. The role of ayurveda in sports medicine is increasing day by day and the sports personalities have also started realising this, according to the experts. Though it is a relatively new wing of the ayurveda, which focuses on the health aspects of sports personalities, including stamina and flexibility of the body, more and more people have showed interest it, said Dr P V Srinivasan, coordinator of the Sports Ayurveda unit, under the Indian Systems of Medicine Department in Kannur [9].

#### Conclusion

Ayurvedic drugs in sports medicine can help in performance enhancement and attaining physical and mental fitness. Traditional *Ayurvedic* system can be used for the treatment of *Sotha* (inflammation), *Sula* (painful conditions) *Vrana* (wound) of sport person. It can be used for development of stamina flexibility, physical as well as mental strength in sport person. Further advancement in this work is required through molecular research.

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