

Ayurveda approaches towards the management of sport injury w.s.r. to sport medicine

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REVIEW ARTICLE

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ABSTRACT

Ayurveda the ancient system of Indian medical science offers various principles and concept to remain healthy and live long life. Sports medicine is of the modality of Ayurveda science which deals with treatment and prevention of sport injury. The sports medicine is a novel concept of Ayurveda emerging from last few decades. Ayurveda offers various treatment modalities for sport injury such as; *Marma* therapy, oil massage, *Yoga*, *Raktamokashana*, *Agnikarma*, physiotherapy and herbal medication. The present article explores scope and utility of sport medicine as per Ayurveda.

Keywords: *Agnikarma*, *sports medicine*, *sport injury*, *Marma*, *Raktamokashana*.

Introduction

Ayurveda the traditional science of healing not only emphasized curative approaches but also offers preventive aspects. Sports medicine is one of the emerging concepts of Ayurveda which deals with maintenance of good physical and mental status of sport persons. Sports persons are susceptible towards the some common physical injuries such as; muscle cramp, shin splints, anterior cruciate ligament, ankle sprain, shock and fracture. Sports medicine along with *Raktamokashana*, *Agnikarma* and physiotherapy /*Marma* play vital role for the management of such conditions (1-4). The modern concept of sports medicine enables to covers specific area like; cardiology, orthopedic surgery, pulmonology, psychiatry, biomechanics and traumatology. The sport medicine of modern era offers desired therapeutic response in above mentioned specific area and treatment modality towards sport injury differs depending upon type of injury. Therefore as per Ayurveda variety of sport medicines are required for different types of sport injury along with *Marma* /*yogic* exercises (3-7).

According to *Acharya Sushruta* in the context of *Agnikarma* indication mentioned that when ligaments, joints and bones (deeper Structure) are affected by *Vata* and *Kapha*, such pathogenesis should be treated as *Agnikarma* therapy repeatedly without any doubt while

when pathogenesis involved to *Tvak*, *Mansa*, *Sira* (superficial structure) then treated with *Raktmokashana* (2-6).

Specific Role of Ayurveda in Sports Medicine:

The traditional text of Ayurveda does not quoted directly regarding sport medicine but inherently proposed various aspects which may be correlated with sport medicine or sport injury. Ayurveda described concept of *Dincharya* which should be strictly followed by a sport person similarly concept of *Rasayana* medicine imparts beneficial effects in the physical personality of a sport person. As per Ayurveda there are seven *Dhatu* which contributes towards the structural and functional buildup of body, in sport medicine *Mansa* and *Asthi Dhatu* play vital role similarly *Upadhatu* such as; *Snayu* and *Kandra* also involve in sport injury. Prominent joints such as; *Gulfa*, *Janu*, *Aratni*, *Jatru* and *Sthuladanta* are vulnerable to sport injury. Ayurveda prescribed various *Marma* therapies along with natural medicine to empower strength of these *Dhatus* and *Updhatu*s.

Acharya Sushruta mentioned reference of Physiotherapy in the context of post fracture treatment rehabilitation with soil material ,Salt crystal and lastly Stony crystal useful one by one for affected fracture site of patients to

restore normal function. Therefore we can say that Ayurveda directly or indirectly contributed greatly in the management of sport injury (3-7).

Common Sport Injury/Sock/Trauma as per Ayurveda:

Asthibhagna

Asthitoda

Dwijaprapatana

Sadana

Srama

Bhagna

Mamsagatvata

Sandhimukta

Snayugatvata

Ayurveda Treatment of Sport Injury

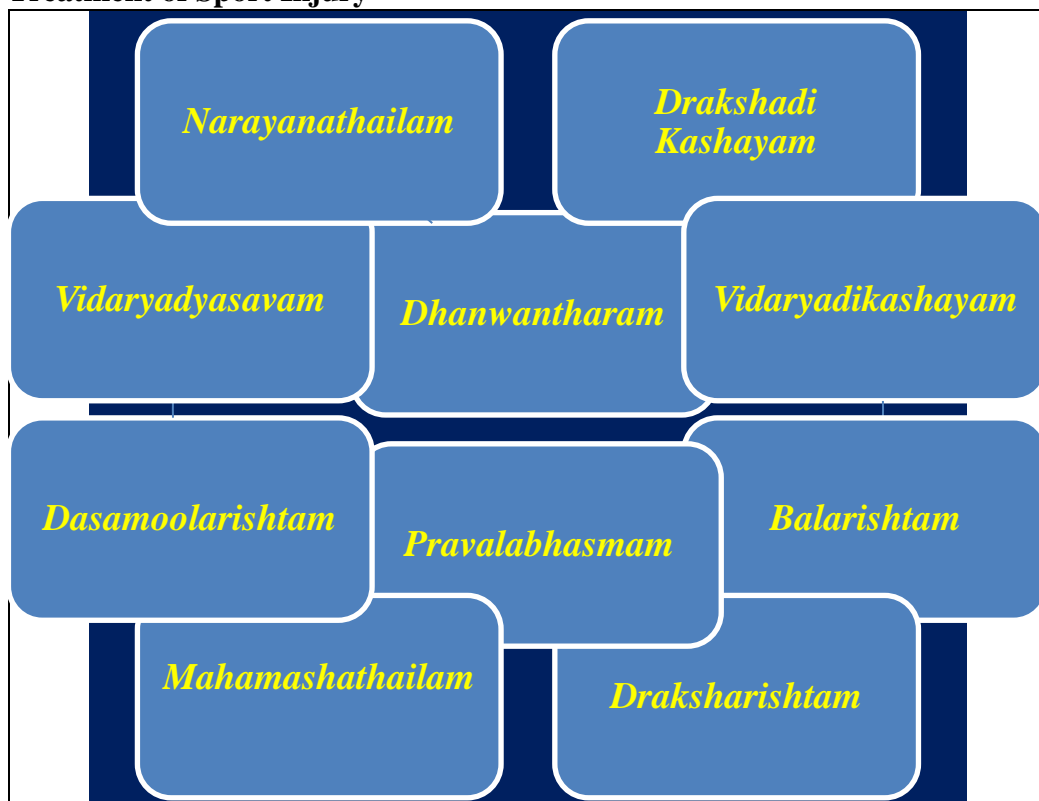


Figure 1: Some Ayurveda formulation recommended for sport injury

The specific Ayurveda treatment modalities and formulations exerted selective effect in sport injury as follows:

❖ *Lepana / Aalepa / Upanaha*

Manage pain

Promote tissue healing process

❖ *Raktamokashana*

The common objectives of treating sport injury involve rehabilitation of injuries, active mobilization, passive mobilization, strengthening, boost up tissue healing process, manage pain and fixing of dislocated part. These objectives/goals may be achieved by using various Ayurveda formulations along with physiotherapy. Drugs belongs from *Brimhaneeyadasaimani* category boost muscle, *Jeevaneeya Dasaimani* acts as vitiliser and *Balakara Dasaimani* promotes strength hence these category of drugs also improves performance level of sport person. Similarly *Draksha*, *Barbara*, *Priyala*, *Parooshaka*, *Iksu*, *Yava*, *Shastika*, *Dadima*, *Jeevaka*, *Phalgu*, *Rishabhaka*, *Meda*, *Mahameda*, *Kakoli*, *Ksheerakakoli*, *Jeevanti*, *Mashaparni* and *Mudgaparna* are acts as performance enhancing agents thus may be used as sport medicine (4-8).

Instant pain relief.

Restore Normal function.

❖ *Agnikarma*

Instant relief in pain.

Improvement in restricted movements at the affected site.

❖ *Kati vasti*

Effective in back pain and in muscular pain.

❖ *Bandhana*

Bandage with medicaments relief inflammation and pain.

❖ *Snehan and swedan*

Snehan offers lubrication to joints; makes body flexible and act as painkiller.

Ayurveda also recommended some internal and external medicine along with *yoga* as per the various stages of sport injury which are as follows:

Table 1: Ayurveda therapy recommended as per various stages of sport injury

S. No.	Stages	Internal medicine	External medicine	Yoga
1	Initial phase	<i>Musthadi Marma Kashayam</i>	<i>Ostalgin Oil</i>	<i>Sasankasanam, Bharadwajasanam, Nikunchasanam and Ardhamalsyenthrasanam.</i>
2	Rehabilitation pahse	<i>Dhanwantharam Kashyam</i>	<i>Dhanwantharam Thailam And Gandha Tailam</i>	<i>Marjarasanam, Vyagrasanam, Noukasanam, Shalabhasanam.</i>
3	Conditioning Phase	<i>Gulguluthikthakam Gritham</i>	<i>Shashtika Thailam, Mahamasha Tailam, Pichu With Ostalgin Agnikarma Raktmokashana</i>	<i>Sasankasanam, Vyagrasanam, Noukasanam.</i>

Traditional Medicines and Formulation as Sport Medicine:

The traditional medicines like *Vranaropana Tailam, Satahvadi Tailam, Murivenna, Marma Tailam, Bala Tailam, Pinda Tailam, Dhanwantara Tailam, Maharajaprasarani Tailam, Mahamasha Tailam, Narayana Tailam* and *Ksirabala Tailam* etc. may be used for the sports injuries. These drugs offer analgesic, anti-inflammatory, relaxant and calming effects. Formulation such as; *Bala Tailam, Maharajaprasarani Tailam, Dhanwantaram Tailam, Ksirabala Tailam* and *Mahamasha Tailam* etc. offer local relief. *Dhanwantaram Tailam* is topical remedy recommended for chronic low back pain, spondylosis, fibromyalgia and muscular fatigue etc. *Mahanarayana Tailam, Dhanwantaram Tailam* and *Chinchodi Tailam* offer anti-inflammatory and analgesic activity. These drugs also recommended for joint pains, sprains and musculoskeletal injuries (6-10).

Rasayana as Sports Medicine:

Rasayana or rejuvenation therapy improves longevity, memory power, intelligence,

complexion, voice and physical functioning of internal organs. *Rasayana* due to their rejuvenating and strengthening effect may also be used as sport medicine to enhance physical performance and muscle strength. Specifically *Rasyanadravya* such as *Vacha* and *Raupyabahsama* act on *Majjavahastrotas* while *Abha* offers beneficial effects for *Asthivahastrotas*. *Rasayana* therapy promotes stamina and methods like *Kutipravesha* boost physical power. *Rasayana* therapy nourishes *Dhatus* thus help to build strong physique, it promote general health and enhances resistant to injury.

Physical Exercises/Yoga/Massage Therapy:

Ayurveda described importance of *Vyayama* for enhancing strength of body and to maintain good physical status. *Abhyanga* is one of the important massage therapies which promotes health but also prevents and cures sport injury. It nourishes body, clear vision, shines and gives desired physique. Massage with various oils; *Udavaratana* and *Udgharshana* pacify vitiated *Kapha*, help to dissolves fat and built up strong body. These massages strengthen calf and thigh

muscles which are very susceptible for injury. The downward massage *Mardana* while squeezing the muscles is helpful in pacifying *Mamsagata Vata*. Another massage *Samvahanam* increases strength, alleviating vitiated *Vata* and *Kapha doshas* and remove fatigue. The massage with feet; *Padaghata* strengthen muscles and helps to combat against stress. The massage with medicated oils improves fitness, cures injuries, heals damaged muscles, stimulates blood circulation, releases stress, reduce pain and tension while *Shalya Tantra* treatment modalities like *Agnikarma* and *Raktamokshana* are beneficial to chronic musculoskeletal disorders (7-11).

Conclusion

Recent development in Ayurveda specially *Shalya tantra* science suggested various medicines for the management of good physical and mental status which is essential for a sport person, these internal medications also offers relief in injuries, edema, stiffness, pain and muscle strain. Ayurveda therapy provide relief in various sport injuries such as; heel pain, tendinitis, tenosynovitis, groin injury, supra spinatus tendinitis, ligament strain and minor fracture. Performance enhancement and physical fitness can be achieved with Ayurveda medicine which acts as sport medicine. Ayurveda approaches may be incorporated effectively in sports from beginning to the end. The various concept of Ayurveda suggested rules of healthy living which is very important for a sport person. The exercises and *Yoga* along with *Agnikarma*, *Raktmokshana* and also Ayurveda medicine cure injury; make strong physique and enhance performances. *Rasayana* therapy boosts stamina and classical method like *Agnikarma* and *Raktmokashana* can also be effectively used for the management of sport injury.

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Conflicts of Interest

The author declares that there are no conflicts of interest.

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