

LITERARY REVIEW OF DRAVYAS I.E. MEDICINAL PLANTS IN MANAGEMENT OF COMMON SPORTS INJURIES.

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Abstract-

In this era of globalization everybody wants to be fit and fine to compete in the race of life. The key of maintaining health is found in Exercise. In ancient India exercise was a crucial part of everyone's daily routine and they used to perform the act of vyayam in scientific and balanced manner.

Now a day's exercise is done as a Fashion and in a vigorous, hazardous manner and without proper guidance. So the incidences of sports injuries are raising alarmingly. Even the trained players besides doing proper workouts are facing troublesome sports injuries.

“Sports injury,” in the broadest sense, refers to the kinds of injuries that most commonly occur during sports or exercise. Some sports injuries result from accidents; others are due to poor training practices, improper equipment, lack of conditioning, or insufficient warm-up and stretching.

Ayurveda is an ancient healing science which is very much beneficial for the treatment and prevention of sports injuries. Lots of medicinal plants are described in Samhitas which can be helpful to treat and prevent sports injuries.

In this research paper a literary study is done to determine Preventive and curative properties of medicinal plants for the management of sports injuries.

Introduction -

“Sports injury,” in the broadest sense, refers to the kinds of injuries that most commonly occur during sports or exercise. Some sports injuries result from accidents; others are due to poor training practices, improper equipment, lack of conditioning, or insufficient warm-up and stretching.

Ayurveda is an ancient healing science. The Samanya Vishesh Siddhanta and Nidanparivarjana stands as a major factor in dealing with illness. These principals' can be implemented in the treatment regime for sports injuries. Along with these principals' many medicinal plants are also described in Samhitas which can

be helpful to treat and prevent sports injuries. These principles of Ayurveda can be used for the treatment and prevention of sports injuries. In this study brief review of these medicinal plants and their properties is carried out, to find out good management of Sport Injuries.

Materials and Methods-

Conceptual study on the basis of references from classical ayurvedic texts along with books on sports medicine.

Review -

Sport Injuries-

Sports injuries results from acute trauma or repetitive stress associated with sports activity. Injuries can affect bones or soft tissues such as ligaments muscles tendons.

Sports injuries are caused by-

- 1) Lack of skills
- 2) Poor training techniques
- 3) Structural abnormalities
- 4) Weakness in muscles tendons ligaments
- 5) Lack of safety measures
- 6) Overtraining
- 7) Psychological factors

Common Sports Injuries are-

- 1) Sprains and strains
- 2) Knee injuries
- 3) Swollen muscles
- 4) Achillies tendon injuries
- 5) Pain along the shin bone
- 6) Rotator cuff injuries
- 7) Fractures
- 8) Dislocations

Commonly followed Treatment regime-

- 1) R- Rest
- 2) I- Ice
- 3) C- Compression
- 4) E- Elevation

Methods to relive pain, reduce swelling and speed up healing are employed. Surgical interventions are also used to treat sports injuries.

Ayurvedic Perspective of sports injuries

शरीरचेष्टा या चेष्टा स्थैर्यार्था बलवर्धिनी।
देहव्यायामसङ्ख्याता मात्रया तां समाचरेत्॥
लाघवं कर्मसामर्थ्यं स्थैर्यं दुःखसहिष्णुता ।
दोषक्षयोऽग्निवृद्धिश्च व्यायामादुपजायते॥
श्रमः क्लमः क्षयस्तृष्णा रक्तपित्तं प्रतामकः।
अतिव्यायामतः कासो ज्वरश्छर्दिश्च जायते॥
(स्वेदागमः श्वासवृद्धिर्गात्राणां लाघवं तथा)

हृदयाद्युपरोधश्च इति व्यायामलक्षणम्॥ च.सू.७/३१-३३

In charak samhita the concept of Vyayam is elaborated in detail. The Definition, Benefits, indications - contraindications are explained meticulously. The harms of excessive exercise are also underlined. The excessive Vyayam leads to weakness, exhaustion, breathing disorders cough, fever, vomiting etc.

According to Ayurveda there are two causes of disease which are Neeja and Aagantu. Neeja vyadhi are caused due to internal factors and aagantu vyadhi are caused by external factors. Sports injuries can be considered as an aagantuj vyadhi caused due to excessive or improper or repeated sports activity or due to acute trauma or accident.

Principal of Ayurvedic Treatment-

- 1) Nidanparivarjan
- 2) Preventive treatment
- 3) Curative treatment

Nidanparivarjana-

Sports Injuries are usually caused due to unawareness regarding proper practice, improper movements and casual approach. Psychological factors like fear, lack of confidence or overconfidence and comparison with others lead to injuries. All such factors should be avoided.

- Physical mental and psychological factors leading to injuries should be ruled out at first.
- The activity should not be done in absence of experts.
- Excessive stretching bending.
- Exertion beyond capacity.
- Excessive exercise

Preventive drugs-

The drugs which will enhances physical fitness and muscular rejuvenation can be used for strengthening the tissues. Injuries due to muscular weakness, untuned body, excessive stress, repeated sprains can be avoided by using such drugs. The drugs with GURU and SNIGDHA properties can be used to enhance physical endurance e.g. Khajur. Plants with STHIR and KATHINA guna can be given to increase power and strength of body e.g.shaliparni. The Rasayana medicines can be used for vitalization of body eg Aamlaki, Ashwagandha. The medicinal plants with properties like guru snigdha sthir kathin manda are helpful for saptadhatuposhan. Those drugs having Balya Bruhan Maansvardhan actions can be used to prevent sports injuries by increasing physical abilities and strengthening body tissues. Regular Abhyanga should be done which by its snehana property will pacify vitiated vata. It is also beneficial to enhance muscle tone and flexibility. The following Mahakashaya can be used for prevention of sports injuries.

1. जीवन्विय(Vitalizers) –

जीवनम् आयुः तस्मै
हितं जीवनीयम्॥

The drugs from this group gives physical and mental stability. They can be used for Saptadhatu vardhan and poshan. Eg. Jivaka, Rushabhak, meda, mahameda, yashtimadhu, kakoli, kshirkakoli, mudgaparni, mashparni.

2. बृंहणीय (Bulk Promatings) –

बृंहत्वं यच्छरीरस्य
जनयेत्तच्च बृंहणम्॥

These drugs provies nourishment to soft tissues.eg. Ashwagandha, kshirvidari, rajkshavak, bala, vidarikanda.

3. बल्य –

These drugs enhances physical fitness and power. Eg. Endri, rushabhi, shatavari, maansparni, ashwagandha, sthira, kutaki, bala, atibala.

4. वयःस्थापन –

These drugs are helpful for rejuvenation of body and increases longevity. Eg. Guduchi, haritaki, amalaki, aparajita, jivanti, shatavari, mandukparni, sariva, punarnava.

Curative drugs –

There are various kinds of injuries ranging from simple sprains to complicated fractures. Treatment aims to relive pain and restore the deformity. Ayurvedic perspective is to allivate pain, improve function, decrease disability and strengthen joints. Internal medicines can be given in the form of churna decoction tablets etc. it helps to heal soft tissues injuries. External application in the form of lepa, abhyanga, parisechana, upanaha etc. Panchakarma Vranachikitsa, Vranabandhan is also beneficial in management of sports injuries. Treatment can be wisely chosen from multiple options according to the type of injury. Following medicinal plants can be used to treat different types of sports injuries. They can be used internally or externally on account of nature of injuries.

1. To relive Pain –

For the purpose of reliving pain usna tiksha medicines are helpful.

a) Shulaprashaman gana is described by charak samhita which contains group of 10 drugs which are useful to cure pain especially in abdominal and pain in loin and

groin region. Similarly vagbhat have mentioned shoolahna gana and shrushrut described pippalyadi gana.

b) Vedanasthapana gana –

वेदनायां सम्भूतायां तां निहत्य
शरीरं प्रकृतौ स्थापयतीति वेदनास्थापनम्]

The drugs explained under this gana are mostly katu, tikta and kashaya rasatmak, katu vipaki and laghu, ruksha. These are kaphaghna properties. So in case of Kaphavrutta vata these drugs can be used to relive pain. So in sports injuries where there is obstructive pathology, these medicines can be used. These drugs can be used in the form of internal or external medicines.

c) Rujahara –Drugs from veeratarvadi, Bruhatyadi also decreases pain.

Pain is always due to vata dosha so all vatagna medicines can be given to relive pain. These drugs can be given internally as well as externally in the form of upanaha, aalep as per the nature of injury.

d) Angamardaprashaman – Medicines from this group helps to reduce stiffness of muscles. Snigdha and mrudu drugs can be used. Eg. Shaliparni, yashtimadhu, vidaryadi gana.

2. Inflammation –

A soft tissue injury is followed by inflammation with is always associated with sports injuries. Medicinal plants can be applied externally in the form of paste, aalep, upanaha, bandha poltis. Swedan, parisechan is also needful to treat inflammation. Internally given medicines reduces inflammation and speeds up the healing process.

a) Shothahara gana- it is described by charakacharya to reduce inflammation. It contains all drugs with laghu, ruksha, katuvipak, tikta kashaya rasa, ushna virya, except gokshur shaliparni prushniparni and gambhari.

b) Shofhaghna - Susharutacharya have explained vallipanchamool, kantikpanchamool as shofagna. Vagbhatacharya included dashamool as anti-inflammatory.

3. To control excessive bleeding –
Shonitasthapan –

शोणितस्य दुष्टस्य दुष्टिमपहत्य प्रकृतौ शोणितं स्थापयतीति
शोणितस्थापनम्]

These drugs purifies blood and also helpful in controlling excessive bleeding. They are Kashya rasa pradhan, ruksha and sheet.

Eg. Laksha, keshar, mocharasa, madhu, lodhra, priyangu.

4. Fractures and dislocations –

There are several medicinal plants which can be used for the faster healing of fractures and dislocations. They can be taken internally for healing and can be locally applied to reduce pain and improve mobility. Lepa, bandhan is also very helpful.

a) Bhagnasandhana gana –

Sushrut samhita and vagbhata samhita have explained nyagrodhadi gana and priyangwadi gana as a bhagnasandhanak gana which is used to treat fractures.

b) Sandhananiya gana –

क्षीणस्य सन्धानकरो धातुपोषकत्वेन; किंवा क्षीणश्वासौ क्षतश्चेति, तेन
क्षीणक्षतस्य उरःक्षतं सन्दधाति||च.सु.२६/४२ चक्रपाणिटीका

The madhura and kashya rasa are sandhananiya rasa. These drugs causes saptadhatuposhan along with soft tissue healing. Snigdha sheeta gunatmak drugs helps in healing of fractures.

5. Cleaning and Healing of wounds –

a. Vranashodhana –

These medicines are useful for cleaning of wounds. There decoction acts as cleansers antiseptics and minimizes purulent discharge. These drugs are tikta kashaya rasa Pradhan, ruksha, vishada, sukshma gunaatmak. According to sushrut samhita Aaragwadhadi, arkadi, surasadi gana are useful for vranashodhana.

b. Vranaropana –

These medicines help in healing of wounds by clearing debris and promoting glandular tissue formation. Priyanguambvashtadi gana is vranaropan gana.

Discussion-

Ayurveda have categorized drugs performing similar functions under particular group (गण). Sports injuries can be treated on the basis of Ayurveda principles with the use of Internal and external medicine and Panchakarma procedures. In this research paper various medicinal plants are discussed attributing to their properties. Thus medicinal plants on account of their properties can be beneficially used to treat sports injuries.

Injuries	Guna attributed to relive injury	Gana mentioned in classical text
Pain due to swatantra Vataprakop	Ushna, Tikshna, Vataghna	Shoolprashamana, Rujahara, Abhyanga, swedana.
Pain due to Paratantra Vataprakop	Katu, Tikta, Laghu, Ruksha,	Vedanasthapana gana
Inflammation	Katu, Tikta, Ushna, Laghu, Ruksha	Shothahara, Shofhaghna
Bleeding	Kashya, Sheet, Ruksha	Shonitastapana,
Sprain	Snigdha, Mrudu	Angamarda prashaman
Fractures & Dislocations	Kashaya, Madhur, Sheeta	Bhagnasandhanak, Sandhananiya.
Cleaning of wounds	Tikta, Kashaya, Vishada, sukshma.	Vranaropan, Vranashodhan.

Conclusion -

There are Different medicines Categorized in specific group (गण) by Charak Susharut and Vagbhat Aacharya. These drugs can be successfully used in management of sports injuries to relive

pain, improve performance of affected part and to restore physical strength. The drugs having similar properties of particular Gana should also be used to treat the specific condition.

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