

A REVIEW ON AYURVEDIC PERSPECTIVE OF SPORTS INJURIES AND ITS MANAGEMENT

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ABSTRACT

Athletes are prone to injuries because of various reasons such as improper training, lack of awareness, and poor technique. Sports medicine is a specialized field that helps in preventing, diagnosing, and treating such injuries. Ayurveda, the ancient science of life, provides valuable insights into sports injuries through its well-defined concepts mentioned in classical texts like Sushruta Samhita, Charaka Samhita, and Ashtanga Hridaya. These concepts, such as Bhagna (fractures), Sandhimukta (dislocations) and Sadyovrana (acute wounds), offer a comprehensive framework for understanding and managing sports injuries within the Ayurvedic context. By effectively correlating these concepts with the specific characteristics of sports injuries, Ayurveda can play a crucial role in developing a robust and effective sports medicine system.

KEYWORDS: Sportsmedicine, Agnikarma, Raktamoksha, Sukhchestaprasara.

INTRODUCTION

Sports medicine is a branch of medicine that deals with physical fitness and the treatment and prevention of injuries related to sports and exercise.^[1] Common sports injuries are concussions, muscle cramps, anterior cruciate ligament sprains/tears, ankle sprain, shin

splints, muscle strains, or fractures.^[2] Sports medicine can encompass an array of specialties, which includes cardiology, pulmonology, orthopedic surgery, psychiatry, exercise physiology, biomechanics, and traumatology.^[3]

Ayurveda, the ancient Indian system of healing, goes beyond mere treatment and embraces a preventative approach as well. This holistic philosophy extends to the realm of sports medicine, focusing on maintaining the optimal physical and mental well-being of athletes. Athletes are prone to certain common physical injuries such as muscle cramps, shin splints, anterior cruciate ligament (ACL) tears, ankle sprains, concussions, and fractures. Sports medicine along with Ayurvedic therapies like Raktamokshana (bloodletting), Agnikarma (therapeutic fire), and physiotherapy, plays a vital role in the treatment.^[4]

Common clinical conditions related to sports injuries in ayurveda

Acharya Madhava in Madhava Nidana has mentioned a list of sports injuries under one roof of the chapter “VataVyadhi Nidana”. Acharya also stated Abhighata as one of the Nidanas of Vata vyadhi. Acharya Charaka also stated several Vata vyadhis which on the Lakshana can be compared to present day Sports injuries.^[5]

1. Mamsa, Meda Gata Vata – Bruises, sprains, and strains caused while getting injured during sports.
2. Snayu Gata Vata – Soft tissue injuries
3. Trika Gata Vata – Low back pain
4. Gridhrasi – Sciatic pain
5. Kroshtukashirsha – Torn anterior and medial cruciate ligament
6. Khalli – Muscle or tendon pulling during exercise training.
7. Vishwachi – Median nerve injury occurred during extensive sports training.
8. Pada daha – Plantar fasciitis
9. Bhagna – Fractures
10. Sandhimokshana – Dislocations
11. Vrana (Injuries) – Open wounds
12. Vranashopha (Swellings) – Inflammatory swellings

Sports Injuries and Their treatment in ayurveda

1. Vrana and Vranashopha

Acharya Sushruta documented an impressive 60 treatment methods for various types of Vranas (Wounds) and Vranashophas (Inflammatory swellings). These methods include:^[6]

- **Apatarpana (Desaturation):** This process removes excess fluids and is the first step in managing all inflammatory swellings, including those associated with sports injuries.
- **Alepana (Application of paste):** Pastes made with specific herbs are applied to the wound to promote healing and reduce pain.
- **Parisheka (Sprinkling):** Medicated liquids are sprinkled over the wound to cleanse it and promote healing.
- **Abhyanga (Anointment):** Massage with medicated oils improves circulation, reduces pain and inflammation, and promotes healing.
- **Swedana (Fomentation):** This involves applying heat to the affected area to promote sweating, which helps remove toxins and improve circulation.
- **Vimlapana (Gentle pressure):** This gentle massage technique helps to reduce swelling and pain.
- **Upnaha (Poultice):** A paste made with medicated herbs is applied to the wound and covered with a cloth to draw out toxins and promote healing.
- **Pachana (Suppuration):** This process promotes the formation of healthy granulation tissue, which is essential for wound healing.
- **Visravana (Bloodletting):** In some cases, bloodletting may be recommended to reduce swelling and pain.^[7]
- **Bandha (Bandaging):** The wound is bandaged to protect it from further injury and promote healing.

Acharya Sushruta also emphasized the importance of treating different types of swellings with specific medications:

- **Vataja swellings:** They are treated with Matulungadi gana, which includes herbs like lemon, ginger, and cardamom.
- **Pittaja swellings:** They are treated with Doorvadi gana, which includes herbs like Bermuda grass and vetiver.
- **Kaphaja swellings:** They are treated with Ajagandhadi gana, which includes herbs like goat's milk and licorice.^[8]

Additionally, Acharya sushruta recommended

- **Intake of Shodhana Sarpi:** This is a clarified butter that has been specially processed to promote healing.^[9]
- **Raskriya containing Haridra (Curcuma longa) and Daruharidra (Berberis aristata):** This is a paste applied to wounds on movable joints that are difficult to manage.^[10]

- Nasya: This is a nasal administration of medicated oils or powders, which is especially beneficial for wounds located in the supraclavicular region.^[11]
- Tryodashanga Tailam: This is a medicated oil prepared from 13 herbs, including *Rubia cordifolia*, *Curcuma longa*, *Embelica ribes*, and *Tinospora cordifolia*, which has proven to be highly effective in wound healing.^[12]

2. Treatment of Bhagna and Sandhimokshana

Acharya Sushruta described various methods for Bhagna Sandhana (Management of fractures). His approach follows a systematic progression:^[13]

a. Closed reduction

- Aanchhana (Traction): Applying pulling force to realign the bone fragments.
- Peedana (Compression): Pressing the bone fragments together.
- Sankshepana (Reduction/compression): Bringing the bone fragments closer to facilitate healing.
- Unnmana (Reduction by pulling upwards): Lifting and manipulating the bone fragments into alignment.
- Vinmanna (Reduction by pressing downwards): Pressing the bone fragments into position.

b. Immobilization

- Kusha Bandhana (Splintage): Using Splints made of natural materials like bamboo or reeds to immobilize the injured area.
- Kapaata Shayana (Immobilization bed): Immobilizing the injured limb on a specially designed bed to maintain proper alignment and prevent movement.

c. Physiotherapy (Sukhchestaprasara)

- Gradual strengthening exercises: Increasing the load and resistance of exercises to regain muscle strength and function.
- Mritpinda (Clay ball): Holding and squeezing a ball of clay to improve grip and hand strength.
- Lavana (Salt): Replacing the clay ball with a heavier object like a bag of salt to progressively increase resistance.
- Pashana (Stone): Using a stone as the final weight to restore full strength and functionality.

3. Agnikarma

- **Pain relief:** Agnikarma can offer immediate relief from pain associated with sports injuries. The heat produced by the therapy helps to stimulate the release of endorphins, the body's natural pain relievers.
- **Reduced inflammation:** Agnikarma can help to reduce inflammation, which is a major cause of pain and swelling in sports injuries. The heat generated by the therapy helps to draw out toxins and improve circulation, thereby reducing inflammation.
- **Improved healing:** Agnikarma can stimulate the healing process by increasing blood flow to the injured area. This increased blood flow helps to deliver oxygen and nutrients to the injured tissues, which can promote faster healing.
- **Muscle relaxation:** Agnikarma can help to relax muscles, which can reduce pain and improve flexibility. This can be especially beneficial for athletes who are suffering from muscle strains or sprains.
- **Increased range of motion:** Agnikarma can help to improve the range of motion of the injured joint. The heat generated by the therapy can help to loosen up tight muscles and tendons, which can make it easier to move the joint.

Specific applications of Agnikarma for common sports injuries

- **Muscle cramps:** Agnikarma can be applied to the affected muscle to relieve pain and spasms.
- **Shin splints:** Agnikarma can be applied to the shinbone to reduce inflammation and pain.
- **Anterior cruciate ligament (ACL) tears:** Agnikarma can be used to relieve pain and swelling after ACL surgery.
- **Ankle sprains:** Agnikarma can be used to reduce pain and inflammation after an ankle sprain.
- **Rotator cuff injuries:** Agnikarma can be used to relieve pain and improve mobility after a rotator cuff injury.

4. Rakthamoksha

- Instant pain relief.
- Restore Normal function.^[14]

5. Traditional medicines

- The classical medicines like Vranaropana Tailam, Murivenna, Satahvadi tailam, Marma Tailam, Dhanwantara Tailam, Bala Tailam, Pinda Tailam, Narayana Tailam,

Maharajaprasarani Tailam, Mahamasha Tailam, Ksirabala Tailam etc. can also be used for the sports injuries.^[15]

CONCLUSION

Ayurvedic sports medicine has emerged as a widely recognized and respected branch of modern medicine. This ancient practice offers athletes a holistic approach to achieving peak performance, physical and mental well-being, and rapid recovery from injuries. Ayurvedic treatments employ internal and external purification techniques to cleanse the body and maintain optimal health, laying the foundation for athletic success.

Ayurveda's efficacy extends to both acute and chronic musculoskeletal injuries, providing effective solutions without the need for major surgery. The potent herbal formulas accelerate tissue regeneration, allowing athletes to return to their sport faster. Acute injuries can be treated with Bandhanas (immobilizing the effected region with different types of bandages). Pain management can be done with Anushastrakarmas like Agnikarama and Rakthamoksha. Moreover, the integration of modern technology with traditional Ayurvedic measures in fitness and rehabilitation unlocks a new level of potential, empowering athletes to reach their full potential.

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