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Letter to Editor

Scope Of Ayurveda In Sports And Exercise Medicine

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Ayurveda, science of global health and wellness envisions life as a series of behaviors conducive to maintain an optimal state of health. Vyayama i.e. a voluntarily organized physical activities for attaining the good health is one such set of behaviors endorsed as a daily regimen in *Dincharya*. Vyayama is congruent to the concept of sports and exercise which involve various competitive and non-competitive physical endeavors for entertainment, material and immaterial rewards and sometimes for obvious health benefits. With an increasing focus on physical fitness and ideal body image especially among the youth across the globe, principles and fundamentals of Ayurveda find greater relevance and application in the arena of sports and exercise medicine, a new medical specialty. Every sport and exercise demands a synergy of body (physical frame), mind (mental instrument) and senses (sensory apparatus). With its elaborate science of therapeutics and strong principles of preventive and promotive dimensions of health, Ayurveda offers a great deal of safe,

cost -effective, time tested and rational fitness strategies to enhance the agility and performance of the trio. Ayurveda, also prescribes various therapeutic measures to eradicate pain, distress and disease, if any, results from the physical activities related to sports and exercise. Being a personalized health care system, it caters to the individualized health needs of the individual sport persons in terms of their Prakruti (Physico-psychological disposition), Agni (Substrate processing ability of body tissuesdigestive and peripheral metabolism), Saar (Functioning of Structural and functional units), Ojas (Vigour and Vitality), Aahar shakti (Feeding capability and Nutrition), Vyayam Shaki (Physical Exercise Tolerance). Satva (Stress Tolerance, Vijnaan Shakti (Information processing and Mindful behaviours).

In a broader perspective Sports medicine is seen as a wide ranging medical specialty which provides expertise in the medical needs of sporting individuals and sporting teams. It focus on aspects of the medical care of individuals exercising in extreme environments and deals with pharmacological, and manipulative management of injuries and distress arising out of exercise or sport activity. Additionally, this discipline is also concerned with injury prevention, enhancing physical function, understanding and improving impairment and enhancing the rehabilitation of injuries. In nutshell, this discipline is a study of interrelationship between physical activity and health & disease.

Taking the lead from theoretical and philosophical framework of Ayurveda, various principles and measure find their application this discipline in e.g. Saatmyikaran siddhant (Principle of Adaptation and Behaviour Modification), Prakruti Siddhant (Principle of Personnel Temprament), Rasayana (Restoration and Rejuvenation of Physical Frame), Achaar Rasayana and Sadvrut (Behavioural Medicine), Dash vidh rogi parikshan (Need assessment of the client) Aahar vidhi vishesh aaytan (Nutrition for health) Santarpan and Aptarpan (Balanced Nutrition), Shaman and Shodhan Chikitsa (Supressing and Eliminative therapies), Antah Parimarjan and Bahir Parimarjan Chikitsa (Internal and External Therapeutics), Marma Sharir All these principles can be Vijnana. utilized as a guiding light for planning the management of various medical problems of exercising individuals at all ages and all

levels of participation as per the requirement of their body. By applying these principles meticulously one may manage and design fitness and training plans for the sports person to optimize their health without using any synthetic and pharmacologic agents which may in long run affect the health of status the individual. Avurveda interventions can be proved to be a great anti-doping measure, which may help not only in bio-elimination of the doping agents from the human systems but also can help in restoring agility, capacity and stamina endogenously through its Rasayana or regenerative effect. Avurveda also prescribes various treatment modalities for pain and wound management pertinent to sports medicine. A thorough knowledge of Marma and their manipulation by applying pressure and needles is a specialty pain which has its management roots in ayurveda. Manual reduction of various dislocations and fractures i.e. Ayurveda Marma, Asthi Sandhi Vijnana (Reflexology) may fill the gaps of the conventional orthopedic treatment in nonа pharmacologic way. This may help in early and easy recovery with lesser time off the field. Many isolated case studies and randomized controlled trials of the application of Marma Therapy in the

management of Musculoskeletal as well as Neuromuscular disorders have demonstrated wonderful results only establishing the principle and therapeutic effectiveness of such therapies. Abhyanga i.e. Massage therapies not only increase resilience and flexibility of skin, muscles, tendons and ligaments but also decrease the pace of degeneration especially in athletes. Massages are mentioned to decrease the pain and increase the stress bearing capacity of the tissues. It relaxes and relieves the body of fatigue. Therefore, massages with suitable oils find wider applicability as а performance enhancer, resilience builder and stress buster for sports activist. Abhyanga coupled with various manual therapies help in healing nerve and difficult to treat musculo skeletal injuries sustained by the sports persons. This can be an the adjuvant conventional sports physiotherapy.

Agnikarma, an ayurvedic thermal cauterization technique is helpful in treating various specific and non-specific pain conditions like plantar fasciitis, tennis elbow, carpal tunnel syndrome, spondylosis etc. It also find application in the treatments of warts and plantar callosities etc. Wounds and injuries have an inseparable relation

with competitive sports activities, *Ayurveda* literature is flooded with various generic and specific therapeutic recipes which may be used for faster healing of wounds with lesser pain and cicatrix formation. In the context of wounds, fractures and dislocations, splinting, bandaging techniques form an integral part of the *ayurvedic* wound management.

An elaborate therapeutic and health Promotive nutrition in ayurveda may find a scope in individualized as well as setting and season based nutrition planning for fitness of sportsperson on and off the field, which is cost effective and culturally more acceptable. It may also help to overcome the problem of disastrous side effects of synthetic nutritional supplements currently available in the market and being consumed by gullible novices.

Various *Panchkarma* procedures may be employed to medically manage the diseases in sports person thereby reducing the chances of recurrence and remissions of diseases and cultivating healthy tissues which is foundation for the use of *Rasayana* therapies for increasing stamina and performance. Various relaxative measures like *Shirodhara, Samvahana, Udvartana* and *Lepa* can be employed to re-energize depleted and exhausted sports person. The Behavioral medicine component of *Ayurveda* may prove to be helpful in disciplining and mental training of the sports persons and inculcate the ethical values amongst the sports persons.

With active participation of more and more women folks in the sports and athletic activities, ayurveda can prove to be relevant managing more in their reproductive health issues i.e. menstrual health problems and fecundity as women athletes are more prone or labile to become afflicted with such disorders. Ayurveda offers rejuvenation therapies for women which not only promote women's reproductive health from menarche to menopause but also increase their sports potential and stress bearing capacity.

All in all, *Ayurveda* has an in-built sport and exercise medicine (SEM) component in it which can be elucidated and elaborated by an integrating both the disciplines and applying fundamentals of ayurveda in filling the gaps of conventional SEM. *Ayurveda* has all the potential to enhance the exercise and sports performance of an individual in the most natural way involving body, senses and mind, as it works on the three dimensions simultaneously. Ayurveda also offers an ardent and rational restorative and rehabilitation program for sports injuries through an array of therapeutic modalities mentioned above. So far as the performance optimization is concerned many validated leads i.e. therapeutic recipes are available in ayurvedic classics. As more and more women folk is part of the sports fraternity ayurveda can also offer various benefits to female sportsperson to strike a balance between their reproductive health and sports career. There are multiple possibilities in

which *Ayurveda* can easily be integrated to this discipline. As embarked in the outset, SEM is a multidisciplinary specialty, incorporating *Ayurveda* in SEM will only increase its effectiveness and applicability. As the goals of the two sciences are convergent upon health and physical fitness optimization by employing body-mind interventions, steps must be taken to educate Ayurveda fraternity, Policy makers and other stake holders to integrate the two disciplines.