

Sports Acupuncture & Moxibustion - Reviews

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1. Introduction

Sports are most often played for the simple fact that people need exercise to stay in good physical condition and/or promote health. In fact, sports encompass a broad range of activities from the ones that are played just for fun to the competitive ones that are performed to athletes' potential limits of physical as well as mental abilities. However, injuries and other adverse effects resulting from overuse and/or improper training, should not be overlooked. Acupuncture and moxibustion treatment have a history with sports injuries in the Japanese sports field. They have been used as a supportive measure for alleviating pain or discomfort associated with sports activities. Despite this history, no organization exists in Japan to handle matters of sports acupuncture and moxibustion. Present practitioners treat sports injuries on their own accord.

The firm positioning of sports acupuncture and moxibustion started when their usefulness were introduced in a presentation entitled "Application of Acupuncture and Moxibustion to Enhance Competitive Abilities" which was presented at the preparatory meeting set up in 1992 for the conference of sports acupuncture and moxibustion, medical science given at the 95 Fukuoka Conference of the 18th Universiade and the University Sports Research Conference held as part of Universiade. The therapeutic effects of acupuncture treatments presented in these conferences and the fact-finding surveys on the treatment of sports injuries with acupuncture and moxibustion for each event were published as a book of literature abstracts¹⁾. On this occasion, the Japan Society of Acupuncture and Moxibustion has become actively involved in various activities aiming to build up clinical evidence and many symposiums have been held to discuss a variety of topics: administering treatment for the state of pre-symptomatic condition before onset of a disease ("mibyō"), exercises, acupuncture and moxibustion²⁾, the current status and problems of sports acupuncture and moxibustion³⁾, and research on sports acupuncture and moxibustion. Introducing practitioners to appropriate information to help the "condition adjustment" for

athletes has become a therapy movement for National Sports Festivals and the National High School Championships' since 1998. This gives the *practitioners more opportunities to be active*.

2. What are Sports Acupuncture and Moxibustion?

Sports acupuncture and moxibustion can be considered as one of the conditioning tools that provide athletes the optimum physical condition including quick recovery from fatigue and the application to training as well as alleviate symptoms they complain⁶⁾. The use of the procedures is dependent on the intensity of training the trainers give in competitive sports, but it is intended for all persons engaged in sports. If acupuncture and moxibustion treatment are used to keep athletes at their best, leading to the prevention of sports injuries, it will help to enhance quality of sports. This is an important role of sports acupuncture and moxibustion and is an inherited concept of oriental medicine of "treat mibyō", or the concept of preventive medicine^{3), 4)}.

3. Clinical Research

The National Sports Festival is Japan's largest sports competition. The author et al. developed the condition adjustment for athletes with acupuncture treatment at the sailing competition sites upon request from the Japan Sailing Federation. The conditioning levels were compared before and after the treatment using the visual analog scale (VAS). The treatment, which was administered as desired by the athletes regardless of before or after the competition, alleviated myofascial low back pain and muscle fatigue of cervix shoulder and back⁷⁾. After the treatment, they said "this is the way to go" and showed enthusiasm for the competition.

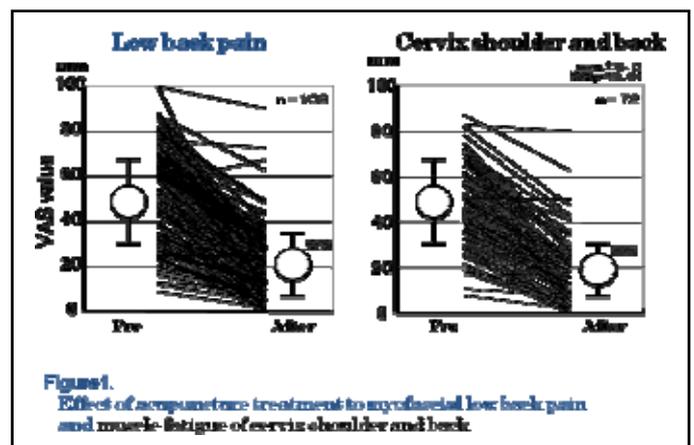
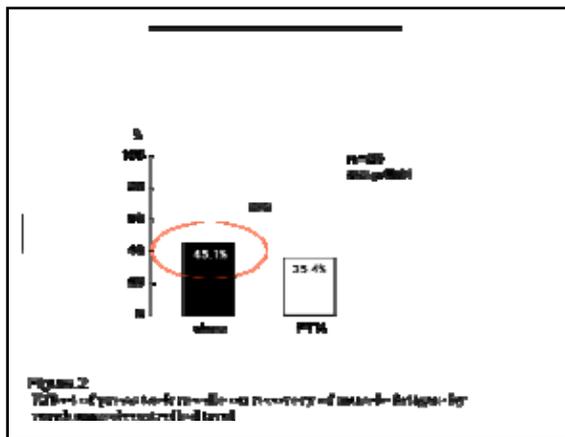


Figure 1.
Effect of acupuncture treatment to myofascial low back pain and muscle fatigue of cervix shoulder and back.



Aside from this, the effects of press tack needle (PTN) were investigated against sham needle in a randomized control trial. PTN, a very short needle with a shape similar to a thumbtack, has the advantage that athletes can continue their sports with the PTN in place. The effects against the model of muscle fatigue were investigated through isotonic exercise of the upper arm flexor muscle group. The exercises were carried out two times with a break taken in between and the decreased number of repeated motions gained from the exercises was compared between the two groups (PTN group and sham group). After the first exercise, PTN was left indwelled and then the exercise was resumed, which showed less decrease in the number of repeated motions compared to a sham needle⁸. In regard to the effects of PTN for muscle soreness developing a day after the race, investigations were made with PTNs indwelled during the race in the lower back region for a triathlon race, and in lower extremities for a marathon race. Needles were indwelled just before the start of the race. The occurrence of muscle soreness on the following day was suppressed in two groups^{9,10}. The results suggest that PTN be used for conditioning for athletes.

4. Education System

The education system for sports acupuncture and moxibustion is yet to be established. This is because there is no comprehensive program available for the subjects from elite athletes to amateur athletes. The basic of sports is to move the muscles in the body to a greater or lesser extent. Therefore, analysis of body movements and corresponding acupuncture and moxibustion treatments are applicable for all persons who play sports. What is required for the education is the content that enables practitioners to achieve accountability on safety, mutual interactions, and

adverse effects.

5. Conclusion

Scientific validation of sports acupuncture and moxibustion is not adequate. Validation is needed in cooperation with all medical fields for each of the sports fields. As well as the evidence of the effects of acupuncture and moxibustion, those of sports injury prevention and sports conditioning need to be accumulated. They will provide valuable input for the use of acupuncture and moxibustion treatment in sports medicine. Expertise in Western medicine, physiological changes with physical activity, and the mechanism of acupuncture and moxibustion together with treatment techniques are also necessary for sports acupuncture and moxibustion.

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