DO ACUPUNCTURE-SHIASTU TREATMENTS INFLUENCE PROPRIOCEPTIVITY AND EQUILIBRIUM?

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Introduction
Modern sport science looks at complementary techniques with increasing interest, trying to integrate western methodologies with knowledge of different cultures. The athlete’s performance is considered as the outcome of many different factors: physiological, psychological and energetic aspects are often studied as a whole [1,2]. Starting from the evidences obtained about the positive influence of shiatsu treatments on muscular strength [3], this work tries to assess the effectiveness of the energetic stimulation applied through digital pressure on acupuncture points by evaluating its influence on proprioceptivity and equilibrium after a single and repeated treatments. Equilibrium tests were used.

Methods
Subjects of the study were 12 healthy female basketball players during active agonistic period. They had been never injured and they had followed the same training program before and while being tested. The athletes were randomly divided in two homogeneous groups. A double blind approach with cross-over was used. Each athlete underwent shiatsu treatments and was subjected to sham interventions. Each subject’s equilibrium level was measured, before the first shiatsu treatment, after the first treatment and after the last one, with an electronic rolling-rocking board with visual feedback. Medium axes, medium translation and medium error degrees were estimated using the DPPS 4.0 Software. All the subjects were familiar with the testing protocol in order to avoid learning effects. A non parametrical within-groups statistical approach (Wilcoxon test–99% confidence) was applied to data.

Results
The Wilcoxon test results in case of real treatments, always showed an increase of the 3 parameters. If the increase was not significative after a single treatment, it was highly significative (p<0.01) after repeated real treatments for average error degrees (21.3%) and average translation (15.5%) and it was very important (29.9%) but not significative for the average axis. In contrast, with sham intervention, variables kept stationary, with not significative increase or decrease comprised into the 5%.

Discussion/Conclusion
The reported results suggested a positive effect of repeated shiatsu treatments on proprioceptivity and equilibrium, according with the hypothesis of proprioceptivity as a skill that requires long time stimulation to show improvements. This conclusion is supported by control group trends. This is another encouraging result after the outcomes about the increase of muscular strength after single and repeated shiatsu treatments. Therefore further investigations may be considered, looking at other factors influencing sport performance.

References
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