

Health care Summit 2019: The effects of cupping cure on skin's biomechanical properties in Wistar rats- Mohammad Mohsen Roostayi - Shahid Beheshti University of Medical Sciences

Mohammad Mohsen Roostayi

Shahid Beheshti University of Medical Sciences, Iran

Cupping therapy has been widely used for clinical treatment of soft tissue lesions. The current study investigated the effects of cupping therapy on biomechanical properties of the skin in Wistar rats. 20 rats were divided into two groups: 10 in experimental and 10 in control group. Either the right or the left lower quadrants of the lumbar regions in the experimental group underwent 10 minutes daily cupping therapy for 12 days. The skin stiffness and ultimate tensile strength of all the rats were measured using tensiometer. The skin stiffness and ultimate tensile strength were decreased significantly in cupping side of the experimental group as compared with the non-cupping side and the control group. There were no significant differences between the non-cupping side of the experimental group and the control group. In conclusion, cupping therapy can be useful as a treatment method to reduce the skin stiffness and ultimate tensile strength.

Cupping therapy is an ancient method of treatment that has been utilized in the treatment of a broad range of conditions. There are many sorts of cupping therapy; however, dry and wet cupping are the 2 main types. Dry cupping pulls the skin into the cup without scarifications, while in wet cupping the skin is lacerated in order that blood is drawn into the cup. Although cupping has been a treatment for hundreds of years, and had been employed by various culture and societies, its mechanism of action isn't well understood. Recently, interest in cupping has re-emerged and subsequently, several studies have begun to research the mechanisms underpinning cupping therapy. For the mainstream doctors trained in western medical sciences, the main focus is basically on the biomedical causes of disease, while traditional medicine practitioners take a holistic approach. Notably, cupping therapy possibly produces numerous effects through a plethora of mechanisms. Research scientists tend to elucidate a selected phenomenon or effect of a drug or device or cupping therapy by describing its underlying mechanism. In practice, description of a mechanism is rarely complete because details of related processes don't seem to be fully identified.⁸ Hypothesis-focused research, however, allows investigators to spot cause-effect relationships, and may be a powerful method for modifying theories about intervention-outcome paradigm. A standard strategy in traditional medicine is to use a reverse research strategy, because traditional therapies -including cupping therapy-have been in clinical use for thousands of years. Accordingly, researchers must understand what the treatment procedure is, what number variation it's, and what theoretical foundations underline it, the ideas about health and disease, its contextual framework and key treatment components. One among the controversial views concerning cupping therapy is that it's only an effect. This placebo theory about cupping therapy will remain alive until a

reliable and valid mechanism is discovered. The controversial arguments associated with cupping therapy motivated the authors of this present study to participate in resolving this scientific dilemma through reviewing available relevant literature. This research endeavor will establish scientific explanations together with evidence-based mechanisms underpinning cupping therapy.

Cupping is performed by several individual techniques per cupping type. Each technique can be accountable for certain changes within the cells, tissues and organs³⁰ One or more of the therapeutic effects of cupping is also partially explained by one theory or more paradigms. Pain reduction, changes in biomechanical properties of the skin and precipitate blood circulation can be explained by Pain-Gate Theory, Diffuse Noxious Inhibitory Controls (DNICs) and Reflex Zone Theory. Muscle relaxation, specific changes in local tissue structures and increase blood circulation can be explained by a release of gas. Additionally, immunological modulation and hormonal adjustment related more to anti-inflammatory action of cupping therapy can be explained by Activation of system Theory. Removal of poisons, uric acid, lipoprotein, serum glutamic oxaloacetic transaminase, iron and heavy metals can be explained by Blood Detoxification Theory. Some limitations are noted to the present study. Measuring diverse and multiple effects with single procedure are to be considered a limitation to the present study. Moreover, it's difficult to see whether the end result of cupping therapy is thanks to any specific type or step in cupping procedure. The small print of each part and process of a mechanism don't seem to be fully understood, making it difficult to having an entire scientific description on how that mechanism works in cupping. This review encompasses a few strengths. We use descriptive analyses for generating hypotheses and theories that explained how cupping therapy works in producing a plethora of effects including therapeutic benefits. However, these paradigms must be verified by advanced scientific basic research. Documented data on cupping effectiveness and multiple outcomes found in various diseases supported the reversed research strategy can be an affordable approach to link its certain mechanisms of action with the reported effects. Overall, it appears that aforesaid mechanisms of cupping therapy couldn't explain all its effects and further research is warranted to develop more theories concerning this traditional treatment technique.

Biography

Mohammad Mohsen Roostayi has been graduated with PhD degree from Tehran University of Medical Sciences as a physical therapist. He is an Assistant Professor at Shahid Beheshti University of Medical Sciences and currently working

as a Vice Chancellor of the rehabilitation school of the Shahid Beheshti University. One of his areas of research is alternative

medicine and understanding the effects of cupping therapy according to evidence base practice