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RECOMMENDED ARTICLES

In this issue of the journal, recommended articles are selected from the Korean Journal of Acupuncture (ISSN: 1229-7933) published in Korean and from the Journal of Pharmacopuncture (ISSN: 2093-6966) published in English.

(1) Korean Journal of Acupuncture, Vol.29, No.1, pp.71~81, 2012

Development of a Multi-frequency Impedance Measurement System for Acupuncture Points and Preliminary Report of Measurement Results

Soo-Byeong Kim, Na-Ra Lee, Seung-Wook Lee, Jun-Young Choi, Yong-Heum Lee

Abstract

Objectives: The purpose of this paper was to suggest a new diagnostic method to estimate the electrical properties at acupoints. Thus, we developed a multi-frequency bioelectrical impedance measurement system to analyze the state of bioions in body fluids, not the skin impedance at an acupoint, for various body compositions.

Methods: At low frequencies, the current does not penetrate the cell membrane, and at high frequencies, the current passes through both intracellular and extracellular fluids because of a decrease in the cell membrane's impedance. To confirm the effect of the composition of an extracellular fluid or an intracellular fluid in a segment such as an acupoint, are developed a system to detect the acupoint potential at 5, 50 and 200 KHz between two adjacent points in the areas of LU3, LU4 and LU9.

Results: The detected acupoint potential decreased with increasing frequency. A correlation analysis of identical left/right acupoints showed a high correlation for three types of acupoint potentials at multiple frequencies. Moreover, we observed a low correlation at 5 KHz, which is a significant factor to be considered for the unbalanced relationship between identical acupoints.

Conclusions: On the basis of a meridian theoretical point of view, we may infer the acupoint's physiological composition by using the multi-developed frequency bioelectrical impedance measurement system.

Key Words: acupoint; bioelectrical impedance analysis (BIA); Bio-ion; acupoint potential

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(2) Korean Journal of Acupuncture, Vol.29, No.1, pp.83~92, 2012

Evaluation of the Muscle Fatigue Recovery Effect and the Meridian Potential Change by Using a Magnetic Acupuncture System

Soo-Byeong Kim, Sun-Woo Park, Soon-Jae Ahn, Na-Ra Lee, Seung-Wook Lee, Se-Eun Min, Young-Ho Kim, Yong-Heum Lee

Abstract

Objectives: The purpose of this research was to develop a magnetic acupuncture system that used a solenoid coil for magnetizing the acupuncture needle. The system could generate a meridian electric potential (MEP) similar to the potential generated by using manual acupuncture. Thus, we tried to confirm the therapeutic effect caused by MEP generation.