observe subscale. This may have implications for mindfulness practices for fibromyalgia patients.

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P02.152 LB
Developing the Evidence for Kinesiology-Style Manual Muscle Testing: A Series of Diagnostic Test Accuracy Studies

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Purpose: Kinesiology-style Manual Muscle Testing (kMMT) is estimated to be practiced by over 1 million people worldwide. Despite its widespread use, the clinical validity of kMMT has never been rigorously assessed and its true usefulness is frequently questioned [1-4]. This paper describes a series of diagnostic test accuracy studies aimed at developing evidence for one application of kMMT: distinguishing true from false spoken statements. The main objectives of this series was to estimate the accuracy of this application of kMMT under varying conditions.

Methods: Six prospective studies of diagnostic test accuracy were carried out where kMMT practitioners were paired with kMMT-naïve test patients (TPs). TPs were instructed to make true/false statements, after which the kMMT was performed. The paradigm under investigation is that a muscle will weaken after speaking a lie and stay strong after speaking a truth. The reference standard was the statements' actual verity and the index test was kMMT.

Results: Consistently through this series of studies kMMT practitioners correctly distinguished lies from truth using kMMT more often than by chance alone or guessing (p < 0.01). In Study 3 there was no significant difference between dynamometer-measured grip strength for true versus false statements (p = 0.94). Testing for various factors that may have influenced kMMT accuracy failed to detect any correlations.

Conclusion: Significant differences were found between accuracy in identifying verity of spoken statements using kMMT compared to both chance and guessing. Furthermore, the practitioner appears to be an integral part of the kMMT dynamic because when removed, no significance is achieved (Study 3). The main limitation of these studies is its lack of generalizability to other applications of kMMT.

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P02.153 LB
Concentrations of Chromium, Selenium, and Copper in the Hair of Visceral-Obese Adults Are Associated with Insulin Resistance

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Purpose: Visceral adiposity is linked to the development of insulin resistance, which is a condition that may contribute to metabolic abnormalities and cardiovascular disease. Various minerals play essential roles in different metabolic functions in the body. Thus, the relationships between mineral concentrations in hair and insulin resistance were analyzed in 144 Korean adults (71 visceral-obese subjects and 73 normal control subjects) in this cross-sectional study.

Methods: Visceral obesity was measured using a bioelectrical impedance analysis (BIA) and insulin resistance levels were assessed using the homeostasis model assessment insulin resistance (HOMA-IR) index.

Results: The visceral-obese group exhibited significantly higher levels of serum glucose (96.5 versus 91.0 mg/dL, P = 0.023), insulin concentration (4.78 versus 2.98 μIU/mL, P = 0.003), and the HOMA-IR index (1.18 versus 0.64, P = 0.003) compared with the normal control group. After adjusting for age and sex, there was a positive correlation between copper levels in hair and the HOMA-IR index in the visceral-obese group (r = 0.241, P = 0.046) whereas chromium and selenium levels in hair were negatively correlated with the HOMA-IR index (r = −0.256, P = 0.034, and r = −0.251, P = 0.038, respectively).

Conclusion: Chromium and selenium levels in the hair of visceral-obese adults were inversely associated with insulin resistance, whereas copper levels in the hair were positively associated with insulin resistance. This suggests that the mineral status of visceral-obese adults might play a role in the development of insulin resistance.

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Minimum Inhibitory and Bactericidal Concentrations of Different Honeys and Bee Propolis Against Multidrug Resistant Staphylococcus Sp. from Mastitis

Abstract Withdrawn