Serum Lipid Moderating Effect and Scavenging Capacity of Brewed Vinegar with Traditional Chinese Medicine-Semen Euryale’s’ Extracts

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Background and purpose: Previous studies have revealed that vinegar and extracts of Semen Euryale moderate serum lipids and decrease oxidative stress. The objectives of this study were: (1) to research the moderating effect of feed with or without extract of Semen Euryales and vinegar on hamster serum lipid major in Cholesterol, TG, HDL, LDL, and (2) to determine its antioxidative activity of the extract of Semen Euryales by scavenging free radicals in vitro.

Methods: Water or vinegar with extract of Semen Euryales was fed to hamster for 7 weeks. The serum samples were analyzed with cholesterol related values on 0, 1, 3, 5, 7 week separately. On the other hand, the extracts were determined scavenging capacity including DPPH radical, superoxide anion, hydrogen peroxide scavenging test and Fe2+ chelating test. Each analyzed for significance using the Student’s unpaired, two-tailed t-test by the SPSS 12.0 software.

Results: HDL/LDL and Chol/HDL ratios of extract of vinegar or water with extract of Semen Euryales were better than the control group (only feeding with high cholesterol diet). Also, the extract of Semen Euryales increased antioxidative activities by scavenging or quenching reactive oxide species.

Conclusion: The results showed that the extract of Semen Euryales could moderate serum lipid trend to normal condition under high cholesterol diets especially as vinegar existed. The reason maybe concern with accelerating lipid metabolism via avoid of lipid oxidation induced by free radicals.

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The Effects of Spinal Cord Injury on Motor Imagery of Lower Limb

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Background and purpose: Previous study reported that patients with spinal cord injury (SCI) preserved motor imagery (MI) of lower limb. The objective of this study is to compare the ability of MI of lower limb in each types of spinal cord injury.

Methods: 20 SCI (10 complete, 10 incomplete) and 10 healthy adults participated in this study. Evaluation for the ability of MI used a part of lower limb in the Kinesthetic and Visual Imagery Questionnaire (KVIQ), then the visual score and the kinesthetic score are obtained. Kruskal-Wallis test was used to compare to each scores between 3 groups. Post-hoc test was used Steel-Dwass test.

Results: The results revealed significant differences in the visual score and the kinesthetic score between 3 groups (p<0.025, p=0.047). In addition, there is a significant difference in the visual score between incomplete SCI and healthy adults (p=0.034).

Conclusion: The results showed that the ability of MI is effected by type of spinal cord injury and that the visual score with incomplete SCI is lower than healthy adults.

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Comparative Study of Hip Osteoarthritis Patients and Healthy Adults in Motor Imagery

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Background and purpose: Recently, motor imagery is studied by many researchers not only in neurological disease but also in musculoskeletal disorders. We studied the characteristics of motor imagery in subjects with hip osteoarthritis (OA) from the perspective of the temporal and subjective vividness.

Methods: Subjects were 22 patients with hip OA and 10 healthy adults. Temporal characteristics were assessed with mental chronometry. Seated participants were instructed an action to place one foot forward 5 times onto a platform consecutively. At first subjects imagined the action without their execution, then actually performed. The kinesthetic and visual imagery questionnaire (KVIQ) served to assess motor imagery vividness of visual and kinesthetic imagery on upper and lower limbs. ANOVA was used for the data analysis.

Results: Results from mental chronometry revealed that temporal accuracy in the affected lower limb with hip OA was significantly lower than the unaffected lower limb and healthy adults (p<0.05). Results from the KVIQ revealed that subjective vividness in the affected lower limb with hip OA was significantly lower than healthy adults, and especially kinesthetic imagery was significantly lower than visual imagery (p<0.05).

Conclusion: These results indicated that hip OA patients demonstrated low imagery performance from the perspective of the temporal and subjective vividness.

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Health Risks Determinants Among Freshmen Students of The University of Santo Tomas

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Background and purpose: The health of students studying in tertiary education institutions (e.g. college or university) is a matter of increasing concern. In the same way, the transition to college has been identified as a critical period for weight gain. The objectives of this study are (1) to determine the anthropometric and BMI profiles of the freshmen students of the University of Santo Tomas (UST); (2) to determine the relationships between BMI, WC and WHR and (3) to identify the percentage of individuals who have high risk of having health related problems.

Methods: A total 397 freshmen students composed of 186 males and 211 females aged 16-18 years were included to participate in this study using purposive sampling method. The height, weight, waist, and hip circumferences were measured using standard methods. Descriptive anthropometric characteristics and the Body Mass Index (BMI) profile of the students were obtained using calculated means and standard deviations. The correlation between BMI and WC and BMI and WHR were generated using Pearson correlation coefficient.

Results: This study was able to determine the anthropometric characteristics of all three hundred ninety seven (397) freshmen students of the University of Santo Tomas (UST) with mean age of 16.81 ± 0.75 for the male