

The clinical correlation between blood pressure and the prevalence of metabolic syndrome in an elderly fishing and agricultural population in Taiwan: A cross-sectional study

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Purpose: The little information detailing the relationship between blood pressure and the prevalence of metabolic syndrome. The aim of the present study was to determine whether the level of blood pressure is associated with the prevalence of metabolic syndrome in an elderly agricultural and fishing population in Taiwan.

Methods: The study participants were conducted with a total of 4383 (2794 males and 1589 females) healthy subjects voluntarily admitted to a teaching hospital for a physical check-up in 2010. The definition of metabolic syndrome is according to the criteria proposed by International Diabetes Federation in 2005. The results of blood pressure were stratified into optimal, normal, high-normal, and hypertension.

Results: The prevalence of metabolic syndrome in this sub-population is 23.9% and subjects with hypertension (32.5%) is significant higher than high-normal group (22.6%), normal group (15.9%), and optimal blood pressure group (10.9%) (p-value for trend test <0.05). From the multiple logistic regressions, blood pressure difference is related to metabolic syndrome after adjustment for confounding factors. Those who were in the hypertension, high-normal, and normal group had 3.91 times (95%CI: 3.09-4.95), 2.37 times (95%CI: 1.81-3.11), and 1.54 times (95%CI: 1.14-2.08) the risk for metabolic syndrome as compared to that in the optimal blood pressure, respectively.

Conclusion: In conclusion, subjects with higher blood pressure would have a higher likelihood combined with metabolic syndrome in this elderly occupational population.

Biography

Chiao Erh Chang has completed her Bachelor of Health Risk Management in 2012 and currently been studying as a master student of Public Health at Fu-Jen Catholic University, Taipei, Taiwan. Her research interests include public health, occupational epidemiology, chronic diseases and clinical research. She has experiences working on 2 occupational research projects when studying at university. Her ongoing research focuses the relationship between sleep disorders and possible developing diseases.

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