

OA-GE-02

CARDIOMETABOLIC PROFILE OF THE ELDERLY IN THE 2013 PHILIPPINE NATIONAL NUTRITION AND HEALTH SURVEY

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INTRODUCTION

The objective is to determine the prevalence of cardiovascular and metabolic diseases and risk factors among elderly seen in the 2013 NNHeS.

METHODOLOGY

This study utilized a cross-sectional analytic design. Data were taken from the results of the 8th Philippine NNS in 2013 through FNRI's Public Use Files. Elderly participants from different regions who consented to participate in the interview, anthropometrics, and clinical data collection were included.

RESULTS

There were 1,835 elderly participants included. 44.4% of the elderly had hypertension (BP>140/90 mm Hg). The most common dyslipidemia among the elderly is LDL>100 mg/dL (84%), HDL<40 mg/dL (63%), total cholesterol>200 mg/dL (56%), triglyceride>200 mg/dL (39%). 52.6% of the elderly have Metabolic Syndrome. Among its components, HDL<40 mg/dL in men and <50 in women is most common (90.8%), followed by BP >130/85 mmHg (59.2%), triglycerides >150 mg/dL (39%), waist circumference >90 cm in men and >80 cm in women (33.5%), and fasting blood sugar (FBS) >100 mg/dL (30.1%). Among elderly, 20% have impaired fasting glucose (FBS>100 mg/dL), and 10% have diabetes (FBS>126 mg/dL), with decreasing prevalence as age increases. 22.9% are overweight or obese based on the WHO BMI classification, 33.5% have elevated waist circumference, but 21% are undernourished, showing double burden of over- and undernourishment. Regarding risk factors: 31% are current alcohol drinkers; 21.7% current smokers; 53.7% have physical inactivity; 82% have unhealthy diet.

CONCLUSION

Filipino elderly have high prevalence of cardiometabolic diseases and risk factors. Given this, future research regarding the implication of these to quality of life, longevity, general health, management of these conditions is recommended.

KEY WORDS

metabolic syndrome, diabetes, hypertension, obesity, dyslipidemia

OA-GE-03

PLASMA ADIPONECTIN LEVEL AND CORRECTED QT INTERVAL IN SMOKER AND NON-SMOKER ADULT MALE SUBJECTS

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INTRODUCTION

Animal studies reported that adiponectin plays a role in expression of potassium channel and duration of action potential in ventricular muscles. Only few studies are available focusing on role of adiponectin in QTc interval in human study. This study aimed to investigate the plasma adiponectin level and corrected QT interval (QTc) in smokers and non-smokers.

METHODOLOGY

This cross-sectional analytical study was undertaken in 30 smokers (age: 26.5±4.1 years, body mass index (BMI): 21.67±1.66 kg/m²) and 30 non-smokers (age: 25.4±3.52 years, BMI: 20.95±2.1 kg/m²). Plasma adiponectin level was determined by enzyme-linked immunosorbent assay (ELISA). The QT interval was measured by routine 12-lead ECG with Lead II rhythm and QTc was calculated.

RESULTS

Plasma adiponectin level was significantly lower in smokers (27.89±15 µg/ml) than that of non-smokers (52.13±21.57 µg/ml) ($p<0.001$). A significant increase in QTc interval was seen in smokers (415.37±29.90 vs 395.63±26.13 ms, $p<0.01$). A significant negative correlation between plasma adiponectin level and QTc interval was observed in the whole study group ($n=60$, $r=-0.407$, $p=0.001$). The risk of low adiponectin levels in smokers was 8.1 times higher than non-smokers (odds ratio (OR)=8.1, 95% confidence interval (CI)=1.61-40.77) whereas the risk of QTc prolongation in smokers was 6 times higher than non-smokers (OR=6, 95% CI=1.17-30.73). Risk of QTc interval prolongation was 4.3 times increased in low adiponectin group than normal adiponectin group (OR=4.27, 95% CI=1.05-17.46).

CONCLUSION

Smokers have greater risk for low plasma adiponectin level and prolonged QTc interval. Decreased adiponectin level might partly contribute to prolonged QTc interval in smokers.

KEY WORDS

smoker, adiponectin, QTc interval

OA-GE-04**SERUM LEPTIN, SERUM ESTRADIOL AND BONE MINERAL DENSITY IN OBESE AND NON-OBESE POSTMENOPAUSAL WOMEN**

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INTRODUCTION

Osteoporosis is one of the major health issues in postmenopausal women. However, it has been reported that obesity is protective against osteoporosis. There are many evidences reporting that leptin and estrogen play a role in regulation of bone metabolism. Thus, leptin and extra-gonadal estrogen have a considerable role in osteoprotective effect in obese postmenopausal women. The present study aimed to investigate the serum leptin, serum estradiol and bone mineral density in obese and non-obese postmenopausal women.

METHODOLOGY

Non-obese (age=56±2.91 year; body mass index: BMI=22.39±2.12 kg/m²; n=30) and obese postmenopausal women (age=55.03±4.03 year; BMI=31.69±2.87 kg/m²; n=30) were recruited from Hlaing-Thar-Yar Township to participate in this cross-sectional analytical study. Serum leptin and estradiol levels were determined by enzyme-linked immunosorbent assay (ELISA) and bone mineral density (BMD) was determined by quantitative ultrasound (QUS).

RESULTS

Serum leptin, serum estradiol and BMD were significantly higher in obese than non-obese postmenopausal women (leptin: 13.81±5.11 vs 4.93±2.47 ng/ml, $p<0.001$; estradiol: 109.69±35.17 vs 87.65±37.86 pg/ml, $p<0.05$; BMD: 0.10±1.20 vs -2.62±1.04, $p<0.001$). BMD had significant positive correlation with BMI in postmenopausal women ($r=0.683$, $p<0.001$, $n=60$). Serum leptin level had stronger correlation with BMD ($r=0.6$, $p<0.001$) than serum estradiol level ($r=0.28$, $p<0.05$). There is no correlation between serum leptin and serum estradiol levels.

CONCLUSION

Increased BMD in obese postmenopausal women might be due to increased serum leptin and serum estradiol levels considered as osteoprotective effects on bone metabolism. BMD had stronger association with serum leptin than serum estradiol levels and it indicated that serum leptin might have more important contribution in bone metabolism in postmenopausal women.

KEY WORDS

obese postmenopausal women, osteoporosis, leptin, estradiol, BM

OA-GE-05**THE PERFORMANCE OF PREDICTIVE INDEX FOR OSTEOPOROSIS (PIO) AND OSTEOPOROSIS SELF-ASSESSMENT TOOL FOR ASIANS (OSTA) AS A CLINICAL TOOL FOR IDENTIFYING THE RISK OF OSTEOPOROSIS IN ADULTS**

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INTRODUCTION

A new clinical tool, the Predictive Index for Osteoporosis in Men (PIO) which includes current smoking status has been recently developed to identify the risk of osteoporosis in men under 70 years old⁷.

OBJECTIVES

To compare the performance of Predictive Index for Osteoporosis (PIO) with Osteoporosis Self-Assessment Tool for Asians (OSTA) as a clinical tool for identifying the risk of osteoporosis in Filipino men 50–69 years of age and Filipino women 50–65 years of age.

METHODOLOGY

This was an analytic study that employed a cross sectional approach that included Filipino men and women seen at the Outpatient Charity Department or at the private clinics and who underwent DXA. All the subjects completed a structured questionnaire and their weight and height were obtained, from which their PIO and OSTA scores were computed.