ABSTRACT 166

Prevalence of metabolic syndrome (MS) among postmenopausal women and its associated factors at Gynaecology clinic, Hospital Universiti Sains Malaysia (HUSM).

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Abstract (<350 words)

Background The metabolic syndrome has been defined as a constellation of lipid and non-lipid risk factors that increase subjects' risk to develop cardiovascular disease (CVD). The prevalence of the metabolic syndrome increases with age and after the onset of menopause, and may explain in part the apparent acceleration of cardiovascular disease in postmenopausal women

Methods A cross-sectional study of all postmenopausal women that was conducted in Hospital Universiti Sains Malaysia. It involved all 411 patients who were postmenopausal and their age more than 45 years old, attending the Gynaecology clinic HUSM. Sociodemographic data, waist circumference, weight, height and blood pressure were recorded and a fasting blood sample obtained for serum glucose and lipid profile determinations. Woman were counselled and managed according to the results. Metabolic syndrome was defined in accordance with criteria of International Diabetic Federation (IDF).

Results The mean age of participants was 57.2 + 6.9 years. The prevalence of metabolic syndrome, according to IDF criteria, was 36.7%. Using the same criteria, 100%, 78.8%, 67.5%, 58.3% and 53% of women presented with abdominal obesity hypertension, low high density lipoprotein (HDL) cholesterol, hypertriglyceridemia and diabetes, respectively. In this study we found that 92.2%, 71%, 42%, 19.4%, and 4.6% of all the participants had at least one, two, three, four, or five components, respectively. The risk of MS detection (univariate analysis) increased with presence of obstetric history of HPT (odds ratio (OR) 2.64, 95% (CI) 1.25-5.62), family history of HPT (odds ratio (OR) 1.71 , 95% (CI) 1.13-2.59) and obesity (odds ratio (OR) 2.59, 95% (CI) 1.08-6.23), and the usage of contraception (odds ratio (OR) 1.56, 95% (CI)1.02-2.42). However, only family history of Hypertension (HPT) which accounts 45.4% is the most important associated risk factor to develop metabolic syndrome (MS) by using multiple logistic regression analysis.

Conclusions There is a high prevalence of the metabolic syndrome in postmenopausal Kelantan women seeking gynaecologic health care. The determinant factors of metabolic syndrome related to previous obstetric HPT history, family history of HPT and obesity, and contraception consumption. Therefore more effort should be encouraged toward the implementation of lipid screening and educational programs focused on high-risk populations to prevent cardiovascular morbidity and mortality.