Factors Associated with Metabolic syndrome among Thai women

Sununata Youngwanichsetha
Sasithorn Phumdoung
Metabolic syndrome

Metabolic syndrome (Syndrome X)

- Central obesity
- High blood pressure
- High triglycerides
- Low HDL-cholesterol
- Insulin resistance
The Metabolic Syndrome
1: 4-6 of women
Metabolic syndrome
Factors related to the Metabolic syndrome
Unhealthy Eating
Lack of doing exercise

• Sedentary activity
Factors related to the metabolic syndrome
Factors related to the metabolic syndrome
Impacts on Women Health
Impacts on Women Health
Impacts of metabolic syndrome
Metabolic syndrome...Type 2 DM
Hyperglycemia & Dyslipidemia
Hyperglycemia & Dyslipidemia

How atheroma builds up

- Artery wall
- Blood within the artery
- Atheroma (fatty deposits) building up
- Fat deposits develop, restricting the blood flow through the artery.
Impacts on Women Health

Blocked Lumen in Branch of Left Coronary Artery

Anterior Infarct
Coronary Heart Disease

- **Coronary heart disease**
  - Angina (dull/heavy to sharp chest pain or discomfort)
  - Pain in neck, jaw, throat, upper abdomen or back

- **Heart attack**
  - Chest pain or discomfort
  - Upper back or neck pain
  - Indigestion
  - Heartburn
  - Nausea and vomiting
  - Extreme fatigue
  - Upper body discomfort
  - Shortness of breath

- **Arrhythmia**
  - Fluttering feelings (palpitations)

- **Heart failure**
  - Shortness of breath
  - Fatigue
  - Swelling in feet, ankles, legs, and abdomen.
Chronic Kidney Disease
Early detection & Prevention
62% could not achieve good glycemic and lipid control
Objectives of the study
Objective of the study

This study aimed at describing factors associated with the metabolic syndrome among Thai women.
Research Methods

• A cross-sectional analytical research was designed and carried out in a tertiary hospital located in southern Thailand.
Research Methods

• A cross-sectional analytical research was designed and carried out in a tertiary hospital located in southern Thailand.
Participants

• Systematic random sampling was used to select participants (n=245).
Metabolic syndrome

• Central obesity (waist circumference > 80 cm)
• Triglyceride of > 150 mg/dL
• HDL cholesterol < 50 mg/dL
• Fasting plasma glucose > 100 mg/dL
• Blood pressure > 130/85 mmHg
Data collection

• Data were collected through the metabolic syndrome questionnaire relating to the risk behaviors concerning dietary intake, physical activity and exercise.
Study settings

The diabetes clinic
Data analysis

• Descriptive statistics
• Pearson’s correlation
Results

• The mean age was 33.15 (SD=4.29) years.
• Mean body weight was 71.35 (SD=10.84) kg.
• Mean triglycerides was 197.57 (SD=60.22) mg/dL.
• Mean fasting plasma glucose was 123.6 (SD=8.82) mg/dL.
Results

• 12 Factors associated with the metabolic syndrome:
• Current body weight
• Body mass index
• A history of overweight/obesity
• Skin fold body fat
Consuming sweetened drink
Sweetened drink and desserts
Sweetened desserts
Thai desserts
Thai Fruits
Processed Foods
Consuming food containing high fructose corn syrup
Consuming animal fat
A history of GDM

Hypertensive disorders
Postpartum IFG/IGT

FBS 100-125 mg/dL

2 h plasma glucose 140-199 mg/dL
Cardiovascular diseases
Doing regular exercise
Discussion

• Consuming these items for a period of time results in elevated free fatty acid, enlarged fat cells, and accumulation of adipose tissue both subcutaneous and visceral fat, which is the major contribution to insulin resistant and metabolic syndrome.
Conclusion

• Over consuming unhealthy foods and lack of exercise were key lifestyle affecting metabolic syndrome.
***You Are.. What You Eat..***
Implications

- Prevention of overweight, obesity, and the metabolic syndrome
- Early detection and management of the metabolic syndrome
Further Research

• Longitudinal study of the metabolic syndrome should be carried out.
Thank you for your attention
Any questions or suggestions?
You can be......