INTRODUCTION

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Obesity is an important risk factor for cardio-metabolic diseases, including diabetes, hypertension, dyslipidemia and coronary heart disease (CHD) also body fat distribution is an important risk factor for obesity-related diseases (Grundy et al, 2002).

Excess abdominal fat (also known as central or upper-body fat) is associated with an increased risk of cardio-metabolic disease; however, precise measurement of abdominal fat content requires the use of expensive radiological imaging techniques, therefore waist circumference (WC) is often used as a surrogate marker of abdominal fat mass, because WC correlates with abdominal fat mass (subcutaneous and intra-abdominal) which is associated with cardio-metabolic risk (Polio, 1994).

Men and women who have WC more than 102 cm (40 inch) and >88 cm (35 inch) respectively are considered to be at increased risk for cardio-metabolic disease (Batik, 2000).

Insulin resistance is one of cardio-metabolic risk which defined as fasting glucose FG between 100 to 125mg/dL and carries the greatest predictive power for diabetes also it associated with a higher risk for future development of atherosclerotic cardiovascular disease (ASCVD) Compared with other metabolic risk factors (Alexander et al, 2005).

Hyperlipidemia and increase low density lipoprotein LDL also promote atherosclerotic cardiovascular disease (Barter et al, 2003) .

High density lipoprotein HDL likely induces additional anti-thrombotic and anti-apoptotic effects that are protective of the vasculature (Cockerill et al, 2001) .

Hypertension also by itself promote atherosclerotic cardiovascular disease by various mechanisms (Chobanian et al, 2003).

Cardio-metabolic risk is defined as Waist circumference equal to or more than 94 cm for males and 80 cm for females together with any two of the following.

1-Raised triglycerides >150 mg/dl or on specific treatment for this problem.

2-low HDL-cholesterol <40 mg/dl in males and <50 mg/dl in females or on specific treatment for this problem.

3-Hypertension if systolic BP>130 or diastolic BP>85 mmHg or on specific treatment of pervious diagnosed hypertension.

4-Fasting blood glucose >110 mg/dl.

(The international diabetes federation IDF consensus new world definition of cardio-metabolic risk , 2005).

Prior studies demonstrate that diabetes mellitus (DM)is associated with larger infarct size and worse outcomes after acute myocardial infarction (Abaham, 2003) .

Cardio-metabolic risk is a precursor of diabetes mellitus (DM) and highly prevalent among patients with acute myocardial infarction (AMI) so it is possible that patients with Cardio-metabolic risk will have a poorer prognosis after acute myocardial infarction (AMI) .