



The relationship between Obesity, Adiponectin level and Diabetes type2.

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Background : Obesity is a pandemic social problem worldwide. Excess fat accumulation is causally linked with various metabolic risk factors including type 2 diabetes, hypertension, and dyslipidemia a growing body of evidence has identified that link of adiposity to diabetic risk by increased serum leptin and low circulating levels of the insulin-sensitizing protein adiponectin. Adiponectin is a protein molecule that is secreted by the adipocytes of white adipose tissue and highest expressed proteins in adipocytes. There is a tendency for reduced adiponectin levels in obese individuals and also lower in insulin-resistant individuals.

Objective: the study aimed to examine relationships between obesity, insulin resistance and adiponectin levels among overweight/obese adults.

Method: the enquiry were made through medline(pubmed) and chocran library up to 2015.the search term were used comprise of;adipocyte AND fat cell, adipocytokines AND insulin resistance, adipocyte hormone,adiponectin,adiponectine level,adiponectine AND diabete type2, adiponectin AND lipid profil, adiponectin AND body composition.

Result: several epidemiological studies have reported the negative correlation between adiponectin level and BMI and % body fat, waist to hip ratio, waist circumference, truncal fat and intra-abdominal fat. besides, there is an increase in adiponectine with weight loss in obese women. numbers of population studies reported that adiponectin negatively correlated with fasting plasma insulin concentration and 2 hour glucose ,triglycerides and also positively correlated with HDL cholesterol and insulin sensitivity.

Conclusion: insulin resistance and obesity are both associated with lower plasma adiponectin concentration and has potential role in pathogenesis of diabetes type 2.accordingly, imbalance of adipokines contributes to the development of obesity-linked disorders.

Keywords: obesity, Adipocytokines, Adiponectin, insulin resistance and diabete type2.