

Abdominal obesity a better marker of insulin resistance syndrome

Insulin resistance syndrome increases risk for metabolic syndrome, type 2 diabetes, CVD and PCOS.

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Patients with abdominal obesity should be tested for insulin resistance syndrome.

According to Mary Ann Banerji, MD, associate professor of medicine and endocrinology at SUNY Downstate Medical Center in Brooklyn, N.Y., abdominal obesity may be a better marker of insulin resistance syndrome than other indicators such as BMI and weight. Banerji spoke about obesity and its association with insulin resistance syndrome at the 65th Scientific Sessions of the American Diabetes Association.

Insulin resistance syndrome should be considered an early sign of an increased risk for several conditions, including metabolic syndrome, type 2 diabetes, CVD, PCOS, liver disease, hypertension and dyslipidemia.

Abdominal obesity measurements may be the best measure of a person's risk for insulin resistance syndrome, because other markers of body fat do not take into account body fat distribution, which may differ from patient to patient. Women typically have more body fat than men, and patients of var-

ious ethnic groups, especially Asians, may have greater amounts of body fat, even if they have the same BMI.

"Adipose tissue is an active endocrine organ and a source of pro-inflammatory cytokines which contribute to both insulin resistance and atherosclerosis," Banerji said.

Diagnosing insulin resistance syndrome

Insulin resistance syndrome, which can be caused by obesity and inactivity, has several features including central obesity, and hyperinsulinemia. The condition is associated with a decrease in tissue sensitivity to insulin, which leads to compensatory increase in insulin secretion.

According to Banerji, genetic factors and fetal malnutrition may also play a role. Minority patients are at a higher risk for insulin resistance syndrome than whites.

Patients with insulin resistance syndrome can also be identified by several clinical markers. According to the definition provided by the American Association of Clinical Endocrinologists, patients with insulin

resistance syndrome may have systolic blood pressure ≥ 130 mm Hg, diastolic blood pressure ≥ 85 mm Hg and triglycerides ≥ 150 mg/dL.

HDL cholesterol is typically < 40 mg/dL in men and < 50 mg/dL in women. The condition is also characterized by fasting plasma glucose between 110 mg/dL and 125 mg/dL.

Researchers warn that patients fitting the profile for insulin resistance syndrome should be carefully followed for an increased risk of further complications.

Whether insulin resistance itself increases mortality risk is not known. "The question is: Is it anything more than the sum of its parts? Is there something unique about it? This may be tough to answer," Banerji said.

Insulin resistance syndrome should be treated with lifestyle modification. Weight management and increased physical activity can improve insulin sensitivity and may delay or prevent further complications. Pharmacologic interventions for obesity and insulin resistance are areas of active investigation. **ET**

For more information:

Banerji M. Abdominal obesity and other surrogate markers for insulin resistance. Presented at the 65th Scientific Sessions of the American Diabetes Association, June 10-14, 2005, San Diego.