Medical Xpress

SFRP4 linked to impaired glucose tolerance, T2DM

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(HealthDay)—Secreted frizzled-related protein 4 (SFRP4) is associated

with impaired glucose tolerance (IGT) and type 2 diabetes (T2D), according to a report published online July 6 in *Diabetes Care*.

Kaviya Anand, from the Madras Diabetes Research Foundation in Chennai, India, and colleagues reported on the systemic levels of SFRP4 and its correlation with insulin resistance and β-cell dysfunction in 100 individuals with normal glucose tolerance (NGT), 60 with IGT, and 100 with T2D.

The researchers found that circulatory SFRP4 levels were highest in T2D, followed by IGT and NGT (57 ± 7 ng/mL; 40 ± 4 ng/mL; and 27 ± 2 ng/mL, respectively). There were positive correlations between SFRP4 levels and age, homeostatic model assessment-insulin resistance, fasting plasma glucose, fasting insulin, glycated hemoglobin, and serum triglycerides; an inverse correlation was seen for the oral disposition index (DIo). After adjustment for age, sex, waist circumference, glycated hemoglobin, and DIo, higher levels of SFRP4 were independently associated with IGT and T2D (odds ratios per standard deviation, 1.39 and 2.62, respectively).

"These findings suggest that elevated SFRP4 may be a good marker of β-cell dysfunction and insulin resistance," the authors write. "Longitudinal studies with serial measurements of SFRP4 need to be done at different stages of insulin resistance, IGT, and T2D to understand the precise pathophysiological mechanisms involved."

More information: Full Text

tolerance.html