

Early loss of glucagon response to hypoglycemia found in teens

June 22 2012

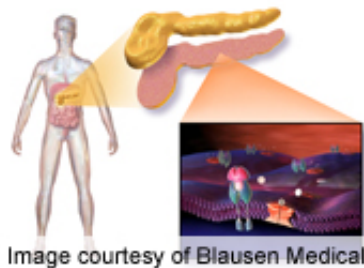


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(HealthDay) -- In adolescents with type 1 diabetes the glucagon response to hypoglycemia is lost as early as one month and at a median of eight months after diabetes diagnosis, according to a study published online June 14 in *Diabetes Care*.

To investigate the glucagon response to hypoglycemia in adolescents with type 1 diabetes, Aris Siafarikas, M.D., of the Princess Margaret Hospital for Children in Perth, Australia, and colleagues conducted a study involving 28 nonobese adolescents with type 1 diabetes (median duration, 0.66 years) and 12 healthy control subjects.

The researchers found that there was a similar glucagon peak to arginine

stimulation between the groups ($P = 0.27$). In adolescents with type 1 diabetes the glucagon peak to hypoglycemia was statistically significantly lower than in control individuals (68 versus 96 pg/mL). For 7 percent of adolescents with diabetes and 83 percent of controls this response was more than three standard deviations greater from baseline and was lost after a median duration of eight months of diabetes and as early as one month after diagnosis. The response did not correlate with height, weight, [body mass index](#), or glycated hemoglobin.

"We conclude that adolescents with type 1 diabetes have impaired glucagon responses to hypoglycemia within 12 months of diagnosis," the authors write. "Prospective studies in children and adolescents starting from the onset of [type 1 diabetes](#) are needed to further characterize the mechanisms influencing the change over time in the [glucagon](#) response to hypoglycemia."

More information: [Abstract](#)

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Citation: Early loss of glucagon response to hypoglycemia found in teens (2012, June 22) retrieved 11 July 2023 from <https://medicalxpress.com/news/2012-06-early-loss-glucagon-response-hypoglycemia.html>

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