

Nature of beta-cell failure tied to glycemic response to GLP-1RA

August 10 2015



(HealthDay)—In patients with type 2 diabetes, characteristics and biomarkers of β -cell failure are associated with glycemic response to GLP-1 receptor agonist (GLP-1RA) therapy, according to a study published online Aug. 4 in *Diabetes Care*.

Angus G. Jones, M.B.B.S., from the University of Exeter Medical School in the United Kingdom, and colleagues examined whether clinical characteristics and simple biomarkers of β -cell failure correlate with individual variation in glycemic response to GLP-1RA therapy. Six hundred twenty participants with [type 2 diabetes](#) and hemoglobin A1c (HbA1c) ≥ 7.5 percent commencing GLP-1RA therapy were studied prospectively and their response to therapy was assessed over six months.

The researchers observed a correlation between reduced glycemic response to GLP-1RAs and longer duration [diabetes](#), insulin cotreatment, lower fasting C-peptide, lower post-meal urine C-peptide-to-creatinine ratio, and positive GAD or IA2 islet autoantibodies (all $P \leq 0.01$). Markedly reduced glycemic response to GLP-1RA therapy was seen for participants with positive autoantibodies (mean HbA1c change, -0.5 versus -1.4 percent; $P = 0.005$) or severe insulin deficiency (C-peptide

Citation: Nature of beta-cell failure tied to glycemic response to GLP-1RA (2015, August 10) retrieved 3 May 2024 from

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