

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

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(HealthDay)—In patients with type 2 diabetes, characteristics and biomarkers of  $\beta$ -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  $\beta$ -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)  $\geq 7.5$  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

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