

 ADRENAL GLAND

‘Nonfunctional’ adrenal tumours increase diabetes risk

Patients with nonfunctional adrenal tumours (NFATs), defined as growths on the adrenal gland that secrete no or very little cortisol, are at greater risk of developing diabetes mellitus than patients without tumours according to new research.

Investigators reviewed medical records to identify 242 patients with NFATs and compared their long-term outcomes with those of individuals who had no evidence of a tumour ($n = 1,237$). Over a mean follow-up period of 7.2 years, 11.7% of the control individuals developed composite diabetes mellitus, defined as the presence of prediabetes or type 2 diabetes mellitus, compared with 27.3% of those with an NFAT.

The presence of an NFAT conferred a 15.6% increase in the risk of developing incident diabetes mellitus (95% CI 6.9–24.3%).

This finding was specific to composite diabetes mellitus as no association was seen between the presence of an NFAT and other measured outcomes, such as hypertension, chronic kidney disease, hyperlipidaemia or cardiovascular events. Finally, when the team included patients with subclinical hypercortisolism in the analysis, 32% of individuals developed incident diabetes mellitus, which suggests cortisol levels have a graded effect on the risk of developing the disease.

“The study findings showed that even though we consider these tumours to be ‘nonfunctional’, the minuscule amounts of cortisol that they secrete may increase the risk of developing diabetes mellitus,” says Anand Vaidya, who led the study. “Future research involving interventions (either medical or surgical) will be needed to confirm whether the risk of diabetes mellitus associated with these adrenal tumours can be mitigated.”

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ORIGINAL ARTICLE Lopez, D. *et al.*
“Nonfunctional” adrenal tumors and the risk for incident diabetes mellitus and cardiovascular outcomes: a cohort study. *Ann. Intern. Med.* <http://dx.doi.org/10.7326/M16-0547> (2016)