

Levels of angiotensin-like protein 2 predict risk of death in type 2 diabetes

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New research presented at this year's European Association for the Study of Diabetes (EASD) meeting in Munich, Germany (12-16 September) shows that in patients with type 2 diabetes, those with higher levels of a growth factor protein called angiotensin-like protein 2 (Angptl2) have an increased risk of death and serious cardiovascular events. The research is by Dr Barnabas Gellen and Dr Mathilde Fraty, Polyclinique de Poitiers, Poitiers, France, and colleagues.

Angiotensin-like 2 (Angptl2) is a proinflammatory circulating protein that plays an important role in formation of blood vessels, insulin-resistance and atherosclerosis. In this study, the authors examined if in patients with type 2 [diabetes](#), levels of Angptl2 could help establish a person's [increased risk](#) of death.

The followed consecutively recruited T2DM patients from the SURDIAGENE study, a French study aiming identify the genetic and environmental determinants of microvascular and macrovascular complications in type 2 diabetes. Patients were analysed for all-cause death as a primary end-point, and the combined outcome of cardiovascular (CV) death, [myocardial infarction](#) (MI), and stroke (Major CV Adverse Events or MACE) as a secondary end-point. For each patient, Angiotpl2 level was evaluated at baseline.

A total of 1353 T2DM patients (58% men) aged a mean of 64 years were followed up for a median of 6.0 years. During follow up, 367 patients (representing 4.5% of the total person-years, a standard measure

of incidence) died and 290 patients (representing 3.7% of the total person-years) presented with MACE.

When patients were divided into quartiles (Q) accordingly to baseline Angptl2 concentration, patients with Angptl2 concentrations of 19.5 ng/ml or higher (Q4-the highest 25%) had around a 2.5 times increased risk of death and MACE compared with those with Angptl2 concentrations of less than 19.5 ng/ml (in Q1-Q3 combined, the lowest 75%) after adjustment for sex, age, and established CV risk factors.

The authors say: "In patients with type 2 diabetes, serum ANGPTL2 concentrations were independently associated with [death](#) and MACE. Therefore, ANGPTL2 is a promising candidate biomarker for improving risk stratification in type 2 diabetes patients, and may prove to be a valuable therapeutic target."

Since concentrations of Angptl2 are not routinely tested for in any [patients](#), including those with type 2 diabetes, the authors say routine testing for this protein is an interesting concept. But they add their results must be confirmed by findings from other trials before any changes to clinical practice are adopted.

Provided by Diabetologia

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