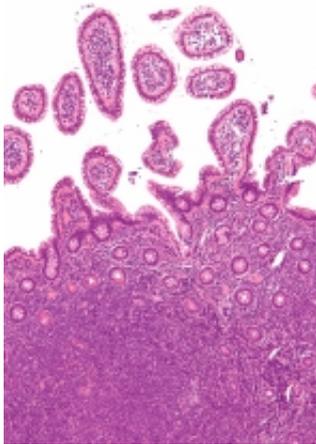


Study suggests pancreatic cancer could be detected early in patients with newly developed type 2 diabetes

15 September 2016



New research presented at this year's European Association for the Study of Diabetes (EASD) meeting in Munich, Germany (12-16 September) suggests that screening patients newly diagnosed with diabetes for pancreatic cancer could be an effective way of diagnosing and treating pancreatic cancer early.

The study is by Dr Pavel Škrha, Charles University, Prague, Czech Republic and colleagues.

New-onset diabetes mellitus/prediabetes with duration of less than 2 years can be the earliest symptom of pancreatic cancer (PAC), especially when significant weight loss is present.

Also, long-term diabetes (T2DM) is a risk factor for developing PAC.

In this study, the authors' aim was to determine the sensitivity and specificity of the current biochemical marker CA 19-9 alone or together with promising

new markers microRNA-196 and -200 in distinguishing PAC patients from non-cancer patients.

A total of 60 PAC patients with DM (35 men/25 women, mean age 67 years), 34 Type 2 DM patients without PAC (27 men/7 women, mean age 63 yrs) and 30 controls (22 men/8 women, mean age 63 yrs) were enrolled in the study.

Diagnosis of the cancer was confirmed either by needle biopsy or by surgical resection of the tumour.

DM/prediabetes diagnosis was made according to American Diabetes Association criteria. CA 19-9 was performed routinely in a laboratory, while serum samples were used for microRNA isolation.

The researchers found more patients with PAC were associated with new-onset diabetes than with long-term diabetes, with 44 of PAC patients having new-onset diabetes and 16 PAC patients having long-term diabetes. All three biomarkers were significantly elevated in PAC patients, with no difference in the subgroups according to the duration of diabetes.

While sensitivity and specificity of CA 19-9 alone to detect the cancer was 85 % and 73 %, respectively, a combination of CA 19-9 and microRNA-196 and -200 improved sensitivity (the ability to diagnose correctly those with PAC) to 95 % and specificity (the ability to identify those without PAC) to 77 %.

The authors say: "Higher detection of new-onset diabetes or prediabetes in pancreatic cancer could play an important role in the early diagnosis of this cancer which has some of the worst outcomes of any cancer. Other signs like weight loss and/or gastrointestinal symptoms may initiate further

examination."

They add: "Thanks to high sensitivity a combination of modern molecular markers microRNA-196 and -200 together with CA 19-9 could be used in the first line of non-invasive pancreatic cancer screening in patients with new-onset [diabetes](#). It would reduce the delay in the diagnosis of [pancreatic cancer](#) and improve the prognosis of diabetic [patients](#) with this malignant disease."

Provided by European Association for the Study of Diabetes

APA citation: Study suggests pancreatic cancer could be detected early in patients with newly developed type 2 diabetes (2016, September 15) retrieved 31 August 2022 from

<https://medicalxpress.com/news/2016-09-pancreatic-cancer-early-patients-newly.html>

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