New scoring system allows clinicians to predict dementia risk in older people with type 2 diabetes

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Researchers have developed a simple scoring system, based on a patient's age, health issues, and education, which accurately predicts the risk of dementia in people aged over 60 with type 2 diabetes. The research, published in *The Lancet Diabetes & Endocrinology*, will allow doctors to closely monitor those patients with diabetes at the highest risk of dementia, allowing early treatment to be given if needed.

Age, education, and six different diabetes-related health complications (acute metabolic event, microvascular disease, diabetic foot, cerebrovascular disease, heart disease, and depression) were all identified as the most important predictive factors, and the researchers incorporated them into an easy to use point scoring system.

The scores allow patients to be allocated to one of 14 categories, with the lowest score (-1) indicating the lowest risk of dementia, and the highest scores (12 – 19) indicating the highest risk. Patients with the highest score were 37 times more likely to develop dementia within ten years than those with the lowest score, and patients with higher scores also developed dementia more quickly than those with lower scores. By testing the scoring system against an unrelated group of older patients with type 2 diabetes, the researchers found that it accurately predicts patients' risk of developing dementia.

Although scoring systems to predict the risk of dementia have previously

been developed for different populations, this is the first time that researchers have developed a scoring system to predict dementia specifically tailored to people with diabetes. The risk score is likely to prove especially useful to practicing clinicians, as it does not rely on expensive, complicated brain imaging or cognitive testing, although the researchers plan to incorporate a second stage into the scoring system in future including some of these aspects, which may lead to improved accuracy.

According to Dr Whitmer, "Unfortunately, there is an epidemic of both type 2 diabetes and dementia, and the link between these two illnesses portends a possible public health crisis. Our model shows that in two large populations of patients with type 2 diabetes a combination of diabetes-associated complications, education, and age is highly predictive of the likelihood of dementia within the next decade. Early detection of patients with type 2 diabetes who are at increased risk of dementia could help to develop and target preventive treatment, and our scoring system has the potential to change clinical care by giving clinicians a simple and accurate way of predicting the risk of dementia in older people with type 2 diabetes."

Writing in a linked Comment, Dr Anna-Maija Tolppanen, of the University of Eastern Finland, Kuopio, Finland, states that, "Generally, risk scores might be useful in the identification of individuals who should be monitored for disease symptoms, selection of high-risk individuals for clinical trials, targeting of preventive interventions towards those at greatest risk, and assessment of the effectiveness of an intervention at reducing the risk of future illness. [The risk score developed in this paper] might be useful for clinicians for the first purpose, but clinical trial data on effective preventive interventions for dementia are currently lacking."

More information: www.thelancet.com/journals/lan …

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