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THERAPY

Achieving T2DM remission in primary care

> it is possible to achieve weight loss and remission of T2DM in the primary-care setting

Recently published results from the DiRECT trial suggest, for the first time, that remission of type 2 diabetes mellitus (T2DM) can be achieved in the primary-care setting with a weight loss intervention.

"T2DM has been regarded as a lifelong and inevitably progressive disease," explains corresponding author Roy Taylor (Newcastle University, UK). Previous studies have shown that very-low-calorie diets can normalize blood levels of glucose and reduce levels of fat in the liver and pancreas of patients with T2DM, but these studies were conducted under controlled conditions. "In the present study, we aimed to find out whether the process of weight loss and keeping weight steady could be rolled out in primary care," says Taylor.

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The trial included 49 general practices from Scotland and the Tyneside region of England. Potential participants were invited to take part in the trial via mail, with 27% expressing an interest in taking part. Eligible participants were aged 20–65 years, had been diagnosed with T2DM within the past 6 years, had a BMI of 27–45 kg/m^2 and were not taking insulin. 149 participants were allocated to the intervention arm and 149 to the control arm (following best practice guidelines). A nurse or dietitian from each practice underwent 8 hours of structured training regarding the delivery of the intervention. Participants in the intervention group received a low-calorie liquid diet for 3 months, followed by structured solid food reintroduction over 2–8 weeks, alongside an ongoing programme of monthly visits to their practice to maintain weight loss. These participants also stopped taking all oral antidiabetic and antihypertensive medications. Participants were encouraged to maintain their usual physical activity levels, but were asked not to increase activity levels during the weight loss phase; an increase in physical activity was suggested during the weight maintenance phase.

The co-primary outcomes of the trial were weight loss ≥15 kg and remission of T2DM (defined as HbA_{1c} levels <6.5% at least 2 months after stopping antidiabetic medications). Twelve months from the trial initiation, 24% of participants in the intervention group had achieved weight loss of ≥15 kg, compared with none in the control group. In addition, 46% of the intervention group achieved T2DM remission, compared with 4% of the control group.

The researchers are continuing to follow up the participants to assess how durable the outcomes are. They are also planning to study the effects of the intervention on fat levels in the liver and pancreas.

Taylor also notes that the messages regarding exercise for weight loss, particularly in middle-aged people, can be confusing — an increase in exercise can result in increased caloric consumption, which hinders weight loss. "In DiRECT, the weight loss phase was entirely about restricting food intake," says Taylor. "Only when people … were concentrating on keeping weight steady were they encouraged to increase physical activity." The DiRECT trial suggests that it is possible to achieve weight loss and remission of T2DM in the primary-care setting. "However, there needs to be a major rethink of the public health advice about weight loss and exercise — distinct from prevention of weight regain," concludes Taylor.

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ORIGINAL ARTICLE Lean, M. E. *et al.* Primary care-led weight management for remission of type 2 diabetes (DiRECT): an open-label, cluster-randomised trial. *Lancet* http://dx.doi.org/10.1016/S0140-6736(17)33102-1 (2017)