Clinical reviews

Our panel of GPs review recent research papers in their specialist areas that may influence the way you practise

Reviewers

Addiction
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Diabetes

Referral to a commercial type 2 diabetes prevention programme can stop progression to diabetes

Patients with non-diabetic hyperglycaemia referred by their GP to a Weight Watchers diabetes prevention programme had a significantly reduced risk of developing diabetes, a UK study has found.

Patients with non-diabetic hyperglycaemia registered at 14 general practices in Bromley, SE London were recruited.

Entry criteria included: fasting blood glucose ≥ 5.5 to ≤ 6.9 mmol/L, or HbA_{1c} 42-47 mmol/mol (6-6.4%) and BMI ≥ 30 kg/m^2. It is worth noting that the lower limit of normal fasting blood glucose was lowered from 6 mmol/L when the concept of prediabetes was introduced, and greatly increased the number of patients considered at risk of type 2 diabetes.

In those patients with a comorbidity (e.g. hypertension or hyperlipidaemia and/or severe osteoarthritis), or those of Asian, African or Caribbean ethnic origin, the BMI threshold was lowered to 27.5 kg/m^2.

Patients who were pregnant, under 17, or taking part in smoking cessation programmes were ineligible.
The study design is described as a quasi-experimental translational research study.

A total of 166 patients were referred to the programme, of whom 149 were eligible. The average age of the study group was 58. Three quarters of the eligible patients were female, and 90% were white. Only 5% of the group were from the most deprived quintile.

Of the eligible patients, 79% (117) attended the activation session, and 69% started the weekly sessions, which were specifically targeted at prevention of type 2 diabetes, and not simply weight loss.

At one year, four patients (3%) had developed type 2 diabetes. Forty four patients (38%) had returned to normoglycaemia. The mean reduction in weight was 10 kg and reduction in BMI was 3.2 kg/m^2. This reduction from 35.5 kg/m^2 to 32.3 kg/m^2 was significant; $P < 0.01$.

There was a mean reduction in HbA_{1c} of 2.84 mmol/mol from 43.42 to 40.58 mmol/mol at 12 months; $P < 0.01$. Reduction in fasting blood glucose did not achieve significance. There was a significant reduction in self-reported waist circumference across the study group.

Many previous studies, such as the Finnish Diabetes Prevention Study have shown that successful lifestyle improvement can reduce the progression to type 2 diabetes, and that this protection is proportional to the success achieved, and persists as long as the interventions are maintained.

This study suggests that the Weight Watchers intervention was a successful lifestyle intervention. There was no control group, and the numbers were too small and the follow-up too short to be sure of the effects on diabetes progression. The large number reverting to normoglycaemia was encouraging.

Although this study gives grounds for cautious optimism, the number of patients with non-diabetic hyperglycaemia in the population is very large, and the costs of upscaling and commissioning such a service are not discussed in depth in the paper.

In the absence of a commissioned service, GPs could consider recommending Weight Watchers as an intervention to the overweight or obese patient with non-diabetic hyperglycaemia on the basis of these findings.

DR MATTHEW LOCKYER

Piper C, Marossy A, Griffiths Z, Adegboye A. Evaluation of a type 2 diabetes prevention program using a commercial weight management provider for non-diabetic hyperglycaemic patients referred by primary care in the UK. *BMJ Open Diab Res Care* 2017;5e000418. doi:10.1136/bmjdrc-2017-000418

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