**BMJ CASE REPORTS**

**Planned intermittent fasting may help reverse type 2 diabetes, suggest doctors**

*And cut out need for insulin while controlling blood glucose*

Planned intermittent fasting may help to reverse type 2 diabetes, suggest doctors writing in the journal ***BMJ Case Reports*** after three patients in their care, who did this, were able to cut out the need for insulin treatment altogether.

Around one in 10 people in the US and Canada have type 2 diabetes, which is associated with other serious illness and early death. It is thought to cost the US economy alone US$245 billion a year.

Lifestyle changes are key to managing the disease, but by themselves can’t always control blood glucose levels, and while bariatric surgery (a gastric band) is effective, it is not without risk, say the authors. Drugs can manage the symptoms, and help to stave off complications, but can’t stop the disease in its tracks, they add.

Three men, aged between 40 and 67, tried out planned intermittent fasting to see if it might ease their symptoms. They were taking various drugs to control their disease as well as daily units of insulin. In addition to type 2 diabetes, they all had high blood pressure and high cholesterol.

Two of the men fasted on alternate days for a full 24 hours, while the third fasted for three days a week. On fast days they were allowed to drink very low calorie drinks, such as tea/coffee, water or broth, and to eat one very low calorie meal in the evening.

Before embarking on their fasting regime, they all attended a 6-hour long nutritional training seminar, which included information on how diabetes develops and its impact on the body; insulin resistance; healthy eating; and how to manage diabetes through diet, including therapeutic fasting.

They stuck to this pattern for around 10 months after which fasting blood glucose, average blood glucose (HbA1c), weight, and waist circumference were re-measured.

All three men were able to stop injecting themselves with insulin within a month of starting their fasting schedule. In one case this took only five days.

Two of the men were able to stop taking all their other diabetic drugs, while the third discontinued three out of the four drugs he was taking. They all lost weight (by 10-18%) as well as reducing their fasting and average blood glucose readings, which may help lower the risk of future complications, say the authors.

Feedback was positive, with all three men managing to stick to their dietary schedule without too much difficulty.

This is an observational study, and refers to just three cases–all in men. As such, it isn’t possible to draw firm conclusions about the wider success or otherwise of this approach for treating type 2 diabetes.

“The use of a therapeutic fasting regimen for treatment of [type 2 diabetes] is virtually unheard of,” write the authors. “This present case series showed that 24-hour fasting regimens can significantly reverse or eliminate the need for diabetic medication,” they conclude.

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