EDITORIAL

Implications of the FAST Protocol Beyond Spirituality

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asting for spiritual purposes is widely practiced and remains part of virtually every major religion in the world. The Fasting Algorithm for Singaporeans with Type 2 Diabetes (FAST) protocol opens the door to a safe approach to fasting for Islamic patients who observe Ramadan, and its application can extend beyond Islamic patients to patients of other religions. The study by Lee et al¹ demonstrates that persons with type 2 diabeties can, with the help of their physicians, engage in safe fasting practices, and they can attain positive health benefits while doing so in the form of improved hemoglobin $A_{1\text{C}}$ and fasting blood glucose (FBG) levels. Moreover, when observing the FAST protocol, patients are less likely to avoid their doctors and have an improved therapeutic relationship with the medical community in their time of spiritual work.

The implications of this study also extend beyond fasting for spiritual reasons. People with or without diabetes are more frequently engaging in the practice of fasting. Individuals are recommended to fast before surgery or procedures like colonoscopies. Although a controversial topic in the medical and nutritional community, patients, including those with type 2 diabetes, are increasingly using it as a strategy for weight loss or health benefits. Fasting regimens can range from timerestricted feeding, to alternate-day or whole-day fasts.

Recent studies have shown that fasting regimens have reduced body weight, body fat, total cholesterol, and triglycerides in normal weight, overweight, and obese humans. Reductions in low-density lipoproteins (LDL) and blood pressure, and increases in LDL particle size have also been seen in some studies.² Fourteen to 36 hours of fasting has also been shown to increase resting energy expenditure and basal metabolic rate.³

Conflicts of interest: author reports none.

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Jonathan G. Gabison, MD Department of Family Medicine University of Michigan 8101 Briarwood Cir Ann Arbor, MI 48108 gabisonj@med.umich.edu In diabetic patients, fasting has been shown to lower fasting insulin and fasting glucose and to have positive overall effects on an individual's hemoglobin A_{1c}.⁴ Long-term fasting schedules have even been shown to reverse type 2 diabetes in certain case studies series.⁵

Similarly, many individuals are attempting low carbohydrate diets (LCD) to obtain health benefits. LCD intervention has shown significant improvement in glycemic control in patients with type 2 diabetes, as well as having positive effects on triglycerides and high-density lipoproteins HDL cholesterol.⁶ Diabetic patients using diabetes medications should take care when practicing an LCD to avoid hypoglycemic events, and recent guidelines from the National Lipid Association Nutrition and Lifestyle Taskforce recommended close physician supervision for such patients.⁷ Diabetic patients who desire to lose weight and have considered an LCD could be another group to benefit from the FAST protocol, which could allow physicians to better support such patients.

While more research is needed, a protocol to manage diabetes medications safely with intermittent fasting may help keep patients safe while we learn more about the use of these strategies to help combat obesity and diabetes. We now know that it is possible for physicians who have a good knowledge of the pharmacology of various diabetes medication classes to support patients who decide to change their eating behaviors, whether via fasting or low-carbohydrate diets.

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