

## Effect of Glucose Control on Delayed Gastric Emptying in Diabetic Patients

**TO THE EDITOR:** I read the report entitled “Do HbA1C levels correlate with delayed gastric emptying in diabetic patients?” by Reddy et al<sup>1</sup> with great interest. The authors investigated the relationship between serum HbA1C and gastric emptying (GE), assessed by gastric emptying scintigraphy, in diabetics. Based on the data, the authors suggest that HbA1C is not as important as daily glycemic control in terms of GE in diabetics.<sup>1</sup> I believe that the diabetic subjects in your study might have had symptoms of gastroparesis because they underwent gastric emptying scintigraphy. Diabetic patients in whom gastroparesis develops have often had diabetes for at least 10 years and typically have retinopathy, neuropathy and nephropathy.<sup>2</sup> Additionally, the contribution of postprandial, as opposed to fasting, glycemia to overall glycemic control (indicated by HbA1C) is reportedly more closely associated with diabetic retinopathy and neuropathy than is either fasting blood glucose or HbA1C.<sup>3-5</sup> Although your study had several limitations due to the fact that it was a retrospective study, information about postprandial glucose levels over the previous few months, such as that given by HbA1C, might be available.<sup>1</sup> Thus, I am curious about the relationship between postprandial glucose and GE. Diabetic gastroparesis is usually chronic and, indeed, has been arbitrarily defined as persisting for more than 3 months. Therefore, investigation of the relationship between postprandial glucose levels over the previous 3 months and GE might be valuable.

Although postprandial glycemia was reported to be more closely associated with diabetic neuropathy related to diabetic gastroparesis, overall glycemic control might also have importance in diabetic gastroparesis. Thus, despite negative results with respect to the relationship between HbA1C and GE in your study, I wonder whether categorical analysis of patients with abnormal HbA1C levels and GE times was performed according to varia-

ble criteria such as GE times of 90, 120 and 180 minutes (what is the normal criteria for  $T_{1/2}$  in your institution? The abstract states 120 minutes, whereas the main body of the paper states 90 minutes) or HbA1C levels of 7%, 8% and 9%. I am also curious about the relationship between HbA1C tendency and GE. That is, was the serum HbA1C level within the previous 3 months increased or decreased compared with the previous HbA1C?

Despite several limitations of the present study, it provides interesting data about the relationship between HbA1C and GE in diabetics. Further studies with prospective settings are needed to reinforce the findings in this study.

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**Conflicts of interest: None.**