

# Pharmacological approaches to the management of type 2 diabetes in fasting adults during Ramadan

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## Dear editor

I read with great interest the recent review article by AlMaatouq regarding the pharmacological approaches to the management of type 2 diabetes in fasting adults during Ramadan.<sup>1</sup> This article stated that “A recent prospective study of more than 1000 patients with T2DM who fasted during Ramadan found that the risk of hypoglycemia associated with a vildagliptin-based regimen (vildagliptin 100 mg once daily) was lower than that of a sulfonylurea-based regimen (both with and without metformin).”<sup>1</sup> This statement needs to be corrected.

Ramadan is the lunar month observed each year in which Muslim adults will fast. This fast includes abstinence from eating, drinking, and smoking from sunrise to sunset. Hypoglycemia during this period represents the greatest health risk for these patients. Recently introduced modulators of the incretin system are the dipeptidylpeptidase-4 inhibitors, which include sitagliptin, vildagliptin, alogliptin, saxagliptin, and linagliptin. These agents are not associated with hypoglycemia.

Two of these agents have been studied during the Ramadan fast.<sup>2,3</sup> A retrospective data audit of 100 patients taking 50 mg of vildagliptin twice daily found that the incidence of hypoglycemia in such patients is less than that of patients with T2DM taking gliclazide during Ramadan.<sup>2</sup> While sitagliptin was the first agent approved in the class, it is also the only agent in the class that has been studied in a large, randomized, controlled prospective trial of T2DM patients during Ramadan. In this study, 1066 adult patients with T2DM who were treated with stable doses of a sulphonylurea with or without metformin for at least three months before screening and intended to fast during Ramadan were randomized in a 1:1 ratio to either switch to 100 mg/day sitagliptin or remain on their prestudy sulphonylurea. At its conclusion, it was found that the risk of symptomatic or severe hypoglycemia in patients switched to a sitagliptin-based regimen (100 mg of sitagliptin once daily) was significantly decreased compared to those who remained on a sulphonylurea-based regimen during Ramadan.<sup>3</sup>

It is thus clearly important that readers understand these facts about the use of both agents in patients fasting during Ramadan.

## Disclosure

The author reports no conflicts of interest in this work.

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