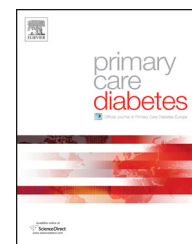




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Original research

Comparative studies of dipeptidyl peptidase 4 inhibitor vs sulphonylurea among Muslim Type 2 diabetes patients who fast in the month of Ramadan: A systematic review and meta-analysis



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ABSTRACT

Aim: To systematically review the literature to compare the use of DPP4 inhibitors vs sulphonylurea in type 2 diabetic Muslim patients who fast in Ramadan, with regards to its safety, tolerability, glycemic control, and body weight changes.

Methods: All English-language medical literature published from inception till October 2014 which met the inclusion criteria were reviewed and analyzed.

Results: A total of nine papers were included, reviewed and analyzed. The total sample size was 4276 patients. All studies used either of the two DPP4 inhibitors – Vildagliptin or Sitagliptin, vs sulphonylurea or meglitinides. Patients receiving DPP4 inhibitors were less likely to develop symptomatic hypoglycemia (risk ratio 0.46; 95% CI, 0.30–0.70), confirmed hypoglycemia (risk ratio 0.36; 95% CI, 0.21–0.64) and severe hypoglycemia (risk ratio 0.22; 95% CI, 0.10–0.53) compared with patients on sulphonylureas. There was no statistically significant difference in HbA1C changes comparing Vildagliptin and sulphonylurea.

Conclusion: DPP4 inhibitor is a safer alternative to sulphonylurea in Muslim patients with type 2 diabetes mellitus who fast during the month of Ramadan as it is associated with lower risk of symptomatic, confirmed and severe hypoglycemia, with efficacy comparable to sulphonylurea.

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