

Vildagliptin efficacy in combination with metformin among Jordanian patients with type 2 diabetes mellitus inadequately controlled with metformin

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Abstract: ABSTRACT Objective: To assess the efficacy and safety of vildagliptin added to metformin in patients with type 2 diabetes mellitus (T2DM) inadequately controlled with metformin monotherapy. Methods: This was a 12-week prospective observational study where vildagliptin 50 mg twice daily was added to patients with T2DM inadequately controlled (glycosylated hemoglobin type A1c (Hba1c) $\geq 10\%$) by a daily dose of metformin 1700 mg between June 2012 and May 2013. Efficacy was assessed by change in Hba1c and fasting plasma glucose (FPG) levels, and safety was assessed by reported adverse events (AEs). Results: A total of 58 patients were enrolled in this study. Their age ranged between 39.0 and 71.0 years, with a mean of 52.6 years, and a standard deviation (SD) of 7.8. The average duration of diabetes mellitus (DM) was 4.0 years (SD 3.0) and half of the patients have had DM for more than three years. The mean baseline levels of Hba1c and FPG were 8% and 10.8 mmol/L, respectively. Patients treated with vildagliptin achieved clinically significant reductions in Hba1c of 1.1% (p value $<.005$) and reduction in FPG of 1.8 mmol/L (p value $<.005$) from baseline. Overall, 62.1% had achieved the target of Hba1c of $<7\%$ after vildagliptin use. Greater reductions in Hba1c were linked to higher baseline levels as well as to the daily frequency of metformin use. Mild AEs were reported by 16 patients. There was no incidence of hypoglycemia and there were no significant changes in body weight after treatment. Conclusions: Vildagliptin as add-on therapy to metformin improved glycemic control and was highly tolerable in T2DM patients who were inadequately controlled by metformin monotherapy