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An investigation on the glycemic control of Type II diabetes after switching from rosiglitazone to gliptins – A retrospective, hospital based study

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Introduction

DPP-4 inhibitors (gliptins) are a new class of drugs first approved for treatment of Type II diabetes in 2006. Following the EMEA decision on rosiglitazone in September 2010, rosiglitazone-containing medications were suspended from the Hospital Authority Drug Formulary and patients on rosiglitazone had to be switched to alternative medications.

Objectives

(1) To evaluate the diabetic control after switching from rosiglitazone to gliptins and compare the efficacy with that of other alternative medications; (2) To evaluate diabetic control of overall patients; (3) To assess the body weight changes after switching to gliptins or other alternative medications.

Methodology

In this retrospective clinic-based study conducted in Our Lady of Maryknoll Hospital, Type II DM patients who had rosiglitazone changed to alternative treatments from September to December 2010 and HbA1c checked within 12 weeks before the switching were recruited. The drug treatment of these patients and their glycemic control changes were reviewed in 12-24 weeks after switching.

Result

A total of 36 patients (17 male, 19 female, mean age = 66) were reviewed and these patients had been taken rosiglitazone for a mean duration of 94 weeks. Amongst them, 21 patients were switched to gliptins, 5 to pioglitazone, 6 to insulin, and 4 to miscellaneous treatments. There were no statistically significant changes between pre- and post-switching HbA1c levels in different groups (gliptin group: 7.85% vs. 7.98%; other treatments: 8.49% vs. 8.25%; overall: 8.11% vs. 8.09%). There was also no change in the percentage of patients achieving HbA1c target <7% in gliptin group. A significant decrease in mean body weight of 1.5kg (p<0.05, paired t-test) was observed in the gliptin group. Conclusions: No significant change in glycemic control

was revealed in Type II DM patients switched from rosiglitazone to gliptins after 12-24 weeks. In substituting glitazones, gliptins demonstrated comparable efficacy and potential beneficial effect in overweight patient, being either weight neutral or associated with mild weight loss.