Post-prandial glycaemic reduction by an alpha-glucosidase inhibitor in type 2 diabetic patients with therapeutically attained basal normoglycaemia.

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Post-prandial glucose excursions remain elevated in most patients with diabetes even when normal fasting plasma glucose levels have been achieved. In 39 patients with type 2 diabetes who had attained basal normoglycaemia by therapy with diet alone, a sulphonylurea, a basal insulin supplement or basal plus prandial insulin the mean glycosylated haemoglobin (HbA1) values were at the upper end (mean +/- 1SD, 8.1 +/- 1.1%) of the normal range (5.0-8.2%). Miglitol, an alpha-glucosidase inhibitor, given in a dose of 50 mg three times a day was studied in a double blind randomized crossover study. In diet and sulphonylurea treated patients, a mean 25% reduction of the post-prandial plasma glucose excursions was obtained whereas in ultralente treated patients miglitol appeared to reduce basal plasma glucose levels ($p < 0.006$). Side effects were limited to minor gastrointestinal disturbances, usually ameliorating after the first week of therapy. Alpha-glucosidase inhibition to prevent post-prandial glycaemia may have a role in patients in whom sulphonylurea or diet therapy has been used to obtain normal basal glucose concentrations.