

- The authors evaluated the effects of sitagliptin on the acute insulin responses in Japanese patients with type 2 diabetes mellitus (T2DM) using meal tolerance tests.
- Twenty-one patients with T2DM were given a test meal (460 kcal), and plasma glucose and insulin were measured at 0 min (fasting), and 30, 60, 120, and 180 min after the meal. The insulinogenic index of all of these patients was below 43.2.
- The postprandial profiles were assessed at baseline and after 3 months of treatment with 50 mg/day sitagliptin after a meal (n = 11) or were untreated (control group; n = 10).
- Sitagliptin significantly decreased the plasma glucose levels at 60, 120, and 180 min and significantly increased the plasma insulin levels at 0 and 30 min. The insulinogenic index increased significantly in the sitagliptin group compared with the control group (+16.7 vs. +0.1, $P < 0.005$).
- Administration of sitagliptin at 50 mg/day after a meal improved the impaired acute insulin response and suppressed postprandial hyperglycemia.

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