

Influence of Low Glycemic Index Food Products on Daily Glucose Rate at Type 2 Diabetes Mellitus Patients

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OBJECTIVES

The purpose of this study was to determine the stability of daily blood glucose (BG) level, satiety and safety of using low glycemic index foods product compared with regular meal.

MATERIAL AND METHODS

This study is a preliminary, prospective, randomized, open-ended study. This food product given 2 times each 60 grams. The study was conducted for 4 months and involving 30 male and female type 2 DM subjects. Subjects were asked to conduct 2 visits with wash out period of 1 week. Measurement of BG using CGM within 48 hours every visit. Satiety level was measured with Satiety Quotient (SQ) questionnaire at interval of 0, 15, 30, 60 and 120 minutes.

RESULTS

The group receiving product A after the first 24 hours had Glycemic Response (GR) 11.48 mg/dL and group receiving regular meals was 13.71 mg/dL. MAGE value in group receiving product A after the first 24 hours was 104.61 mg/dL and after the second 24 hours was 91.67 mg/dL. MAGE value in the group receiving regular meals was 91.33 mg/dL and after the second 24 hours was 88.18 mg/dL. SQ questionnaire indicates that the group consume product A feels full faster and less desire to eat.

CONCLUSION

The low-glycemic index of food products leads to decrease in GR and longer satiety compared to regular foods. The decrease in MAGE value after the second 24 hours in the group receiving product A was greater than the group receiving regular meals.

Keywords. low-glycemic index, Glycemic Response, MAGE, Satiety Quotient questionnaire