



CONFERENCE ABSTRACT

Postprandial glycaemic and appetite responses to cookies following incorporation of *Stevia* and *Moringa* leaf powder

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1st International Growth
and Development
Conference (IGDC 2017)

March 16-18, 2017

Dubai, United Arab Emirates

Abstract

Background/objective: Medicinal plants including *Stevia* and *Moringa* constitute an important source of health-beneficial bioactive components and hence, their intake may beneficially modulate biomarkers of chronic diseases. Therefore, the objective of the present study was to investigate the effect of cookies incorporating stevia and *Moringa* leaf powder on postprandial glycaemia, appetite, palatability and gastrointestinal wellbeing in humans. **Design and methods:** In a randomized crossover design, twenty healthy subjects consumed three iso-caloric test foods (each providing 50 g available carbohydrates) of control cookies (CC), stevia leaf-containing cookies (SC) and *Moringa* leaf-containing cookies (MC) as breakfast. Blood glucose and subjective appetite were measured at fasting and over 2 hours after consumption of the cookies. Palatability and gastrointestinal wellbeing were measured using standard questionnaires. **Results:** Compared to CC, MC resulted in a significant decrease in postprandial blood glucose concentration at 30 and 45 min ($P = 0.002$ and $P = 0.003$, respectively) and showed a tendency ($P = 0.077$) for lower blood glucose incremental area under the curve (iAUC). Subjects were significantly less hungry after SC and MC intake ($P = 0.035$ and $P = 0.041$, respectively) compared to CC. In addition, the SC resulted in significantly ($P = 0.037$) lower hunger incremental area over the curve (iAOC) compared to CC. All the cookies were liked by the subjects without any reported gastrointestinal discomfort. **Conclusion:** In conclusion, the results showed that compared to CC, MC improved postprandial glycaemia and reduced hunger, while SC reduced hunger only. Future studies are now warranted to explore the mechanisms responsible for these observed effects.

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