Anti-pancreatic lipase and antioxidant activity of selected tropical herbs.

Abstract

The anti-pancreatic lipase and antioxidant activity of Momordica charantia, Morinda citrifolia fruit, and Centella asiatica extract were evaluated for potential use as an anti-obesity agent. Antioxidant activity of the extracts was determined using 2,2-diphenyl-1-picrylhdrazyl and ferric-reducing antioxidant power assays. Inhibition of pancreatic lipase was measured in vitro. Results from this study showed that Momordica charantia, Morinda citrifolia fruit, and Centella asiatica extract exhibited different levels of antioxidant activity, with IC50 ranging from 0.90 ± 0.1 to 3.7 ± 0.8 mg/mL of extracts. All extracts were found to inhibit pancreatic lipase activity, with Momordica charantia, Morinda citrifolia fruit, and Centella asiatica extract demonstrating 21.0 ± 1.3, 25.8 ± 0.1, and 25.3 ± 0.4% inhibition, respectively.

Keyword: Antioxidant; Catechin; Obesity; Pancreatic lipase; Tropical herbs.