

Study on nutritional and antioxidant properties of selected Sri Lankan traditional sweetmeats

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Sweetmeats are an essential entity of Sri Lankan traditional food culture; however, they have not been fully investigated. This study aimed to investigate the macronutrients and antioxidant properties of seventeen traditional sweetmeats (*Hendi kewum*, *Kollu kewum*, *Naran kewum*, *Athirasa*, *Mung kewum*, *Aasmi*, *Kokis*, *Unduwalalu*, *Welithalapa*, *Madu welithalapa*, *Bedihaal piti aggala*, *Dodol*, *Aluwa*, *Thala guli*, *Kurahan helapa*, *Gotu pittu* and *Kiri roti*) popular in Central province of Sri Lanka. Major nutrients were analyzed using standard analytical methods and 80% methanol extracts were tested for antioxidant activities (AA) by Ferric Reducing Antioxidant Potential (FRAP), ABTS scavenging activity and DPPH radical scavenging assays in triplicates. The results indicated that all deep fried sweetmeats have higher fat contents ranged from 2.3±0.18% (*Aasmi*) to 16.1±0.41% (*Naran kewum*). *Unduwalalu* (8.7±0.14%) and *Hendi kawum* (64.0±0.25%) showed the significantly ($p<0.05$) highest protein and carbohydrate contents respectively. The lowest fat and carbohydrates contents was shown in *Badihaal aggala* (2.3±0.18%) and *Kokis* (40.9±0.28%) respectively. All the sweetmeats were energy dense (248-406 kcal/100g) while deep fried *Hendi kewum* had the significantly highest energy ($p<0.05$). Among the sweetmeats examined for AA, *Naran Kewum* showed the significantly highest TEAC (1595.7±0.03 µg/mL TE) by FRAP assay ($p<0.05$). *Helapa* showed the highest radical scavenging activity for DPPH (564.8±0.02 µg/mL TE) and ABTS (553.2±0.01 µg/mL TE) assays. These AA may be due to the stable polyphenolic compounds at high temperatures and newly formulated molecules by maillardreaction. The findings of this study provides general consumer about the basic nutritional and functional values of traditional sweetmeats of Sri Lanka.

Keywords: Traditional sweetmeats, Sri Lanka, macronutrients, antioxidant activity, energy

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