Total antioxidant activity and phenolic content in selected vegetables

ABSTRACT

This study was carried out to determine the total antioxidant activity and phenolic content of selected common vegetables. The effect of thermal treatment on antioxidant activity and phenolic content were also studied. Kale, spinach, cabbage, swamp cabbage and shallots were used in this study. Among all the vegetables (fresh and thermally treated), shallots showed the highest total antioxidant activity followed by spinach, swamp cabbage, cabbage and kale. Spinach had an exceptionally high total phenolic content, followed by swamp cabbage, kale, shallots and cabbage. Except for shallots and cabbage, the antioxidant activities of kale, spinach and swamp cabbage were significantly decreased ($p<0.05$) after thermal treatment. Moreover, this study revealed that a 1-min thermal treatment significantly decreased ($p<0.05$) the total phenolic content of all vegetables studied.

Keyword: Total antioxidant activity; Total phenolic content; Vegetables