Abstract:

Sweetpotato (Ipomoea batatas) leaves are an excellent source of bioactive anthocyanin and polyphenolic constituents. Fifteen different anthocyanin compounds were identified and quantified by one run HPLC analysis: YGM-0a, YGM-0b, YGM-0c, YGM-0d, YGM-0e, YGM-0f, YGM-0g, YGM-1a, YGM-1b, YGM-2, YGM-3, YGM-4b, YGM-5a, YGM-5b, and YGM-6. The anthocyanins were identified as acylated cyanidins and peonidins. The six different polyphenolic compounds were identified and quantified by NMR, FAB-MS spectra and RP-HPLC analysis procedures were: caffeic acid, chlorogenic acid (3-O-caffeoylquinic acid), 3,4-di-O-caffeoylquinic acid, 3,5-di-O-caffeoylquinic acid, 4,5-di-O-caffeoylquinic acid and 3,4,5-tri-O-caffeoylquinic acid. Results suggest that total phenolic content was positively correlated with radical scavenging activities of sweetpotato leaves. Thus, sweetpotato leaf contains biologically active compounds which have significant medicinal values for certain human conditions.