GC-MS analysis of various extracts from leaf of Plantago major used as traditional medicine

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Plantago major L. leaves have been used as a wound healing remedy for centuries in the treatment of a number of diseases. The objective of this study is to analyse the chemical composition in the leaf extract of P. major. The chemical composition of various extract (petroleum ether, methanol, ethyl acetate, n-butanol and aqueous) from leaf of Plantago major have been examined by Triple Quadrupole GC-MS. Results have showed the main constituents in petroleum ether extract were phytol 13.22%, benzofuranone 10.48%, penthynediol 10.26% and benzene propanoic acid 10.18%; methanol extract were group of diglycerol 30.31% and glycol 18.91%; ethyl acetate extract were glycerine 30.70%, benzene 21.81% and dibuthyl phthalate 16.22%; n-butanol were phtalic acid 24.62%, benzene propanoic acid 16.83% and group of phenol 10.20%; and aqueous extract were phenol 27.47%, diathiapentene 14.53%, napthalenone 14.13% and glycerine 12.02%. Chemical composition identified in all five extracts has showed that all of them have phenol's group in their extract while having different variation of organic acid groups, flavonoids and terpenoids. These data would be constructive for future ethno-pharmacological studies in P.major. © IDOSI Publications, 2012.

Chemical composition; GC-MS; Halal traditional medicine; Plantago major; Soxhlet extraction