

Oil Extract from Gongronema Latifolium Leaves Exhibit Anti-Diabetic and Anti-Ulcer Activities

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Abstract

Air-dried, pulverized leaves of *Gongronema latifolium* were subjected to step wise fractionation using first, ethanol and subsequently fractionation of the dried ethanol extract using solvents of increasing polarity, n-hexane, chloroform, ethylacetate and ethanol. Column fractionation of the n-hexane extract using graded solvent mixture of n-hexane and ethylacetate in specified ratios, yielded four fractionates, one of which F2 was an oil. The F2 (oil) fraction was characterized by gas chromatography/mass spectral analysis. The effects of this oil fraction on alloxan- induced diabetes mellitus and indomethacin - induced ulceration were studied. The results obtained reveals that oil extract evoked significant inhibition of both alloxan- induced diabetes and indomethacin- induced ulcer in rats. The oil on analysis revealed content of essential fatty acyl esters and aromatic dicarboxylic acids, all of which are implicated in inhibiting hyperglycaemia and ulcer formation probably through oxidative reaction or through production of prostaglandins.

Keywords: *Gongronema latifolium*, Essential fatty acids, Diabetes mellitus, Ulcer, Prostaglandins