ESSENTIAL OIL OF RED GALANGAL (ALPINIA GALANGA (L) WILLD) RHIZOMES AS SLIMMING AROMATHERAPY

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ABSTRACT

Red galangal (Alpinia galanga (L) Willd) is an aromatic plant which has potential as aromatherapy. The aim of this research was to evaluate and identify the red galangal essential oil as slimming aromatherapy through in vivo observation in adult male Sprague Dawley rats. The oil was separated by distillation and fractionated by silica gel column chromatography resulting five fractions. Crude essential oil, fractions 1 and 2 were further analyzed by gas chromatography-mass spectrometry and performed in vivo assay. The major compounds in the crude oil were β-bisabolene (11.78%) and trans-caryophyllene (9.10%); in fraction 1 was bicyclo-2-heptene (12.08%); and pentadecane (11.09%) in fraction 2. After five weeks of inhalation with 0.1% concentration, body weight showed significant difference (P<0.05) and animals inhaling the crude oil had the lowest body weight compared to fraction 1 but not different compared to control and fraction 2 treated animals. In conclusion, red galangal’s essential oil compound β-bisabolene and trans-caryophyllene were suggested as the responsible compounds that has slimming aromatherapy effect.

KEY WORDS: aromatherapy, slimming, red galangal, essential oil

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