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In vitro and *In vivo* potentiation of Ampotericin-B by flavonoid against different fungal strains

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ABSTRACT:

Synergistic effects of 18 flavonoids (11 Glycosides and flavones, 01 flavones diglycoside, 04 Chalcones and 02 Aglycones) in combination with different anti-fungal agents against fungal strains were investigated. The agar diffusion assay of these flavonoids with different anti-fungal agents was tested. The Minimum Inhibitory concentration (MIC) values of each of the flavoniod with different anti-fungal agents were determined by using checkerboard broth micro dilution assay. The flavoniods Flavones diglycosid (3, 5-dihydroxy flavones 7-O-b-D-galacturonids-4-O-b-D-glucopyranside) potentiated the *in vitro* and *in vivo* activity against fungal strains. The flavones diglycoside reduced MIC of Ampotericin-B to one half against different fungal strains, *Candida albicans, Candida krusei, Candida parapsilosis, Candida tropicalis and Cryptococcus neoformans* 1202. Although moderate change between *in vitro* and *in vivo* studies have been found, the elucidation of the mechanisms involved in flavonoid action will have many health benefits to man. In conclusion these finding suggested that flavonoid combination regimens may be considered as a useful candidate for the treatment of fungal infection.

Keywords:

Flavonoids, Minimium Inhibitory Conc., Kill kinetics, Natural molecule, Amphotericin-B.

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