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Solanum Alkaloids as Inhibitors of Enzymatic Conversion of Dihydrolanosterol into Cholesterol*

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The influence of solacongostidine (I) and solafloridine (II) along with solasodine (III), tomatidine (IV), tomatillidine (V) and solanocapsine (VI) on enzymatic conversion of 24,25-dihydrolanosterol into cholesterol was examined. Alkaloids (I, II and III) showed inhibitory effect on cholesterol synthesis from 24,25-dihydrolanosterol. Solacongostidine (I) was found to be the most potent, followed by solafloridine (II). It is of significant interest that solanum alkaloids such as solacongostidine (I) and solafloridine (II) are joined to the members of inhibitors of cholesterol biosynthesis from 24,25-dihydrolanosterol. Both alkaloids, especially I showed potent antifungal activity against *Candida albicans*, *Trichophyton rubrum*, *Cryptococcus albicus*, *C. neoformans*, *Torulopsis candida* and *Trichosporon cutaneus*. The accumulation of 14 α -methyl sterols in fungal cells has been suggested to lead to functional changes in cell membranes and to cell death.

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