

Repeated-Dose Dermal Toxicity of Topical Formulation of *Hyptis suaveolens* oil

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ABSTRACT

This study was carried out in order to assess possible toxicity of Hyptis suaveolens cream in various concentrations (3%, 10% and 30%) from repeated exposure by the dermal route over 28 days in rats. Results of the study showed that there were no significant effects on average body weight, relative organ weight, histopathology of organs, clinical biochemistry and hematological parameters of treated rats. By treating with 30% H. suaveolens cream, the sign of erythema was observed in majority of female rats and also the increase of LDH in both sexes of rats after 14 days of treatment. Therefore, it is suggested that H. suaveolens cream in the concentrations of 3% and 10% produce no toxic effect whereas further investigation should be carried out to obtain more information on the effect of 30% cream.

Key words: Dermal toxicity, *Hyptis suaveolens* oil

INTRODUCTION

Hyptis suaveolens (L.) Poit (Labiatae), called in Thai as “Maeng Luk Kha”, is well-known among Northern Thais for its anti-itching property. Part of the plant used for folklore remedies is leaves. The major chemical constituents containing in *H. suaveolens* oil were sabinene, β -caryophyllene, 1,8-cineole (Peerzada, 1997; Azevedo et al., 2001). *H. suaveolens* was reported to be of therapeutic value as a carminative, antiseptic, sudorific and galactagogue (Saluja and Santani, 1993). According to its dermal effect, there are some evidence which support this activity. Iwu et al., (1990) demonstrated that essential oil isolated from *H. suaveolens* inhibited the growth of both gram-negative and gram-positive bacteria as well as some fungi, *Candida albican* and *Aspergillus niger*. Fungitoxicity of *H. suaveolens* oil against *Aspergillus flavus* has also been reported by Mishra and Dubey (1994). Additionally, marked antimicrobial activity of the oil against *Staphylococcus aureus*, *Trichophyton mentagrophytes* and *Trichophyton rubrum* was reported (Titawan et al., 2004).