

Thesis Title	The Efficacy of 7% <i>Kaempferia parviflora</i> Cream for the Treatment of Melasma
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ABSTRACT

Background: Melasma is a common facial skin problem. Since people nowadays pursue the beauty of skin and its health, melasma has become a big concern for the quality of life and mental health of the affected persons. Many factors are liable for the occurrence of melasma including genetics, exposure to UV radiation, hormonal imbalance, pregnancy, and some medicines. The aim is to decrease melanocyte proliferation and elevate the breakdown of melanin in the treatment of melasma. There are many available and effective options for curing melasma. Some natural extracts from medicinal *herbs* are used for the treatment of melasma because of their proven improvement in melasma. *Kaempferia parviflora* is also widely known as “Thai ginseng”. *Kaempferia parviflora* has been long used as herbal folk medicine. Based on safety and efficacy, *Kaempferia parviflora* has been chosen in Thailand as one of the top 5 medicinal products and has the target to produce more income to the country. *Kaempferia parviflora* extract can reduce oxidative stress and also has impressive anti-inflammatory and anti-tyrosinase benefits. We will focus on the anti-tyrosinase activity of 7% *Kaempferia parviflora* and study its potency in treating melasma as a facial cream.

Objective: To study the efficacy of 7% *Kaempferia parviflora* cream for the treatment of melasma.

Materials & Methods: This research is before and after comparison experimental study with 20 participants and the duration is 12 weeks period. The study population is healthy male and female between the age of 30-65 years old. They need to apply the 7% *Kaempferia parviflora* cream twice a day for 12 weeks. Follow-up appointments would be at 4th, 8th and 12th week. In this study we assess Melanin index

score, Modified MASI score, Doctor's evaluation and Patient satisfactory score to test the efficacy. Melanin Index assessment is done by Mexameter. To measure the improvement, photographs taken with VISIA® Complexion Analysis System will be evaluated by 3 dermatologists. The participants were assessed by physician and questionnaires to detect any adverse effects and participants' satisfaction.

Results: The outcome of modified MASI score and Melanin index were significantly improved (p value <0.001) in different visit. Thus, 7% *Kaempferia parviflora* cream can improve melasma. The result showed good improvement in 65% of the participants in Doctor's evaluation score. And 45 % showed very satisfied and 55% showed moderate satisfaction in Patient Satisfactorion Score. is This study also achieved high participants' satisfactory score and doctors' evaluation score and no adverse effect was detected.

Conclusion: Based on the clinical study, it can be concluded that *Kaempferia parviflora* cream significantly reduce skin hyperpigmentation with great satisfaction. In summary, *Kaempferia parviflora* cream appears to be a safe and effective topical treatment for the treatment of melasma.

Keywords: Melasma, *Kaempferia parviflora*, Medicinal Product, Thai Ginseng

