

Thesis Title	The Efficacy of 10% Acacia Concinna Fruit Extract for Treatment of Melasma
Author	Thaweeporn Treepraphakorn
Degree	Master of Science (Dermatology)
Advisor	Tanomkit Pawcsuntorn, M. D.

ABSTRACT

Background: Melasma is a common hyperpigmentation skin disorders with prominent facial aesthetic disfigurement that can cause significant psychosocial distress and quality of life impairments. Sompoi (*Acacia concinna*) extract is known to have anti-tyrosinase effect and can inhibit melanin synthesis and thus providing a significant contribution in controlling the melasma. Clinically, the disease presents as a brown or grayish-brownish hyperpigmented patch and is more common among women, particularly those who are living in regions with very high levels of ultraviolet light. Although the exact reason for melasma is still a mystery, other things have been proposed as potential causes.

Objective: To study the efficacy of 10% *Acacia concinna* fruit extract for treatment of melasma.

Methods: 30 female volunteers with melasma, aged between 20 and 45 years old, who willingly wanted to get rid of their melasma were collected to participate in a split-face, double-blinded placebo-controlled trial for 8th weeks. 10% *Acacia concinna* extract and placebo were sprayed twice daily on designated sides of the face for 8 weeks. Various parameters such as melasma evaluation by dermatologists, MASI score and melanin index were assessed at baseline, 2nd, 4th, 6th and 8th weeks respectively.

Result: Statistically significant results of reduction in MASI score (p-value <0.001) and reduction in mean melanin index (p-value<0.001) were shown for *Acacia concinna* extract-treated side. No side effects were observed throughout the study.

Conclusion: This study statistically demonstrated that *Acacia concinna* extract reduced melanin production more than placebo when it is applied topically with no

harmful side effects. So, 10% *Acacia concinna* fruit extract could be safe, effective and can be used as an alternative for the treatment of melasma.

Keywords: Sompoi, *Acacia Concinna*, Melasma, MASI Score, Melanin Index