# The effect of blue and pink lotus flower extract on acne vulgaris: A randomized double-blind clinical trial

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## Abstract:

### Background:

Acne vulgaris is one of the leading ubiquitous diseases around the world. It is a multifactorial disease which does not threaten life but has serious psychological effects on patients. Patients with moderate to severe acne have been suggested to have poor body image, poor self-esteem, and social isolation and activity constraints. Increased levels of anxiety, anger, depression and frustration are also observed in patients with acne as part of the emotional impact.

### Research gap:

More research on anti-acne treatments is necessary for two reasons. First, the prevalence of acne incidence is high and the effect on the quality of life is profound. Second, there is, according to the numerous studies, a lack of ant-acne treatments that have less side effect. The use of medicinal plants and particularly blue and pink lotus flower extract, with its autoinflammatory effect, could be promising. The blue and pink lotus flower extract is suggested to reduces the activity of sebum overproduction and helps to balance sebum secretion.

### Objective:

The objective of this study was to examine the medical efficacy of blue and pink lotus flower extract in acne vulgaris.

### Method:

In a randomized double-blind controlled clinical trial, 42 patients (21 patients in treatment and 21 in placebo group) were randomly received ‘’Nymphaea Caerulea Flower Extract, Nelumbo Nucifera Flower’’ and placebo extract, twice daily for 1 month. We recorded he Investigator's Global Assessment (IGA) grading score for each participant. In addition, we evaluated the Acne disability index (ADI) utilizing a standard questionnaire filled out by the participants at the beginning and at the end of the study.

**Results**:

The results indicated a 76% mean reduction in the IGA score on the treated group. The mean reduction in the vehicle-treated group, on the other hand, was 4.2%. We also found that the number of comedones, papules, and pustules significantly reduced in the treatment group after 30 days. Additionally, the Acne disability index (ADI) score decreased by 65.01 percent in treatment group, and only 5.6 percent in the placebo group. The current study could not discover any significant side effect in both groups.

**Conclusion:**

The blue and pink lotus flower extract had significant effects on improving the symptoms of acne vulgaris. The results of this study, because of the small sample size, should however be interpreted with caution. The future study on the medical efficacy of the mentioned extract should examine with larger samples.

Keywords: acne vulgaris, lotus flower extract, Nelupure, Sebum.

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## In-text citations:

[1] [2] [3] [4][5] [6][7][8][5][9][10][11] [12][13] [14][15] [16] [17] [18] [15][2][19][20][21][22][23][24]

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