

# The Effectiveness of Oral Mini-Pulse Methylprednisolone in the Treatment of Alopecia Areata in Vietnam

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## Abstract

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**BACKGROUND:** Systemic corticosteroid is used to treat alopecia areata, but it is associated with side effects. Mini-pulse therapy is thought to be effective but able to reduce side effects.

**AIM:** The study aimed to evaluate the effectiveness of oral mini-pulse methylprednisolone in the treatment of alopecia areata.

**METHODS:** Patients received methylprednisolone 16 mg orally for 2 consecutive days every week.

**RESULTS:** After 3 months, among patients, 40% recovered well, and 55.6% recovered fairly. After 6 months, 82.2% recovered well, 17.8% recovered fairly. No adverse events were detected, and the recurrence rate was low (2.2%).

**CONCLUSION:** Oral mini-pulse methylprednisolone therapy is an effective and safe therapeutic option for alopecia areata without side effects, and the time of the treatment is short.

## Introduction

Alopecia areata is an autoimmune disease, affecting 0.2% of the world population, in both genders and all age groups but primarily in young people (aged 15-45), with an unclear aetiology [1]. The most characteristic symptom is hair loss in one or several small rounds or elliptic patches, without pain or itchy. Also, alopecia areata could also cause loss of pubic hair, beard, eyebrows and eyelashes [2].

Systemic corticosteroid therapy has been used to therapy. Though it has beneficial effects, long-term use leads to multiple and note side effects. Pulse and mini-pulse therapy have been introduced to treat

several conditions, including alopecia areata, which have been shown to minimise the side effects of corticosteroids. The effectiveness of oral mini-pulse corticosteroids in treating alopecia areata has not been studied in Vietnam.

The study aimed to evaluate the effectiveness of oral mini-pulse methylprednisolone in the treatment of alopecia areata.

## Methods

We recruited a total of 45 patients with diagnosed alopecia areata by clinical symptoms,

including hair loss in round or elliptic patches with no pain, itching, or scaling, age  $\geq 15$  years and with an indication to oral corticosteroids. The mini-pulse regimen was methylprednisolone 16 mg/day for two consecutive days every week for 6 months. All patients adhered to the study procedure and none dropped out.

## Results

After 1 month, there were 5 patients (11.1%) recovered fairly. After 3 months, 40% recovered well (18 cases), and 55.6% recovered fairly (25 cases). After 6 months, 82.2% recovered well (35 cases), 17.8% (8 cases) recovered fairly, and all these patients got better hair regrowth days every week as shown in Figure 1.

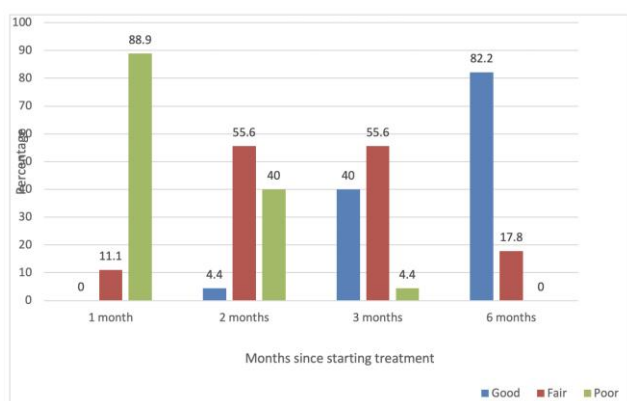


Figure 1: Overall treatment outcome

Severity and gender groups as shown in Table 1 and Table 2.

Table 1: Outcome by severity

Severity	Outcome				p
	Good		Fair		
	n	%	n	%	
Mild	35	85.4	6	14.6	P > 0.05
Moderate	2	50	2	50	

After six months, no side effects were recorded. We had two patients developing new hair loss patches during study participation (one during the therapeutic stage and one during the follow-up stage). This rate was much lower than in patients treated with injected triamcinolone (9.9%).

Table 2: Outcome by gender

Gender	Outcome				p
	Good		Fair		
	n	(%)	n	(%)	
Male	21	77.8	6	22.2	P > 0.05
Female	16	88.9	2	11.1	

## Discussion

In comparison with Doulat Rai Bajai's [3] pulse prednisolone therapy concluding 30 mg per day within 3 days every week, and this treatment lasted for 6 months. After Bajai's treatment, among patients, 85.6% recovered well, which is approximately equivalent with our result. Jea Won Jang and partners' [4] pulse betamethasone therapy consisted in treatment in which patients took 5mg per day within two consecutive days every week. After a one-month treatment, 67.4% of patients got better. Pankaj [5] used pulse betamethasone (5 mg/day within two conservative days every week). After 6 months, 73.3% of the patients recovered well. In another group, patients took 40 mg betamethasone once per month in 6 consecutive months, and 42.9% of the patients recovered well [6].

In conclusion, oral mini-pulse methylprednisolone was effective, simple, with short-term use of medication, and had no side effects.

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