JAPA JOURNAL OF ASIA PACIFIC AESTHETIC SCIENCE

CASE REPORT

Rapid Hair Regrowth in Localized Alopecia Areata Following Low-Dose Intralesional Corticosteroid

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Received: 7 January 2026; Accepted: 27 March 2026; Published: 20 May 2026

ABSTRACT: Intralesional triamcinolone acetonide (ILTA) is a well-established treatment for localized alopecia areata (AA). However, reports on the recommended dosage of ILTA, particularly in the Malaysian context, remain limited. We present the case of a 32-year-old Chinese woman who presented with sudden-onset patchy hair loss over the biparietal and frontal scalp regions, with no family history of alopecia or underlying systemic illness. Clinical examination revealed localized non-scarring alopecia, with normal laboratory findings and no evidence of scalp infection. A diagnosis of localized AA was made. The patient was treated with ILTA at a concentration of 5 mg/mL, administered as multiple 0.1 mL intradermal injections spaced approximately 1 cm apart, using a 34-gauge, 1.5 mm needle and a 1 mL syringe. Sterile saline was used as a diluent to reduce discomfort, and topical lidocaine cream was optionally applied prior to injection. At three weeks, the patient demonstrated significant hair regrowth, accompanied by an improvement in the Severity of Alopecia Tool (SALT) score from 21% to 3–4%, along with high patient-reported treatment satisfaction. This case highlights the rapid efficacy and good tolerability of ILTA at a concentration of 5 mg/mL in the management of localized AA.

Keywords: Alopecia areata, Intralesional triamcinolone acetonide, Localized alopecia, corticosteroid therapy

INTRODUCTION

Alopecia areata (AA) is a chronic autoimmune disorder characterized by the sudden onset of well-circumscribed, non-scarring patches of hair loss resulting from immune-mediated attack on anagen hair follicles [1,2]. It may affect the scalp and other hair-bearing areas, including the beard, eyebrows, eyelashes, and ears [3]. AA is also associated with several comorbid conditions, including psychiatric disorders such as depression and anxiety, as well as autoimmune diseases such as thyroid disease, systemic lupus erythematosus, vitiligo, psoriasis, rheumatoid arthritis, and inflammatory bowel disease [4,5].

There are several factors that may contribute to the development of AA. Hormonal changes, such as those occurring during pregnancy or menopause, may also play a role in its onset [6]. Environmental triggers, including viral infections, stressful life events, and physical injury, may precipitate AA in susceptible individuals [7].

Psychological factors such as anxiety and depression have also been implicated, as stress can affect immune function and potentially trigger disease onset [8].

Management of AA depends on disease severity and the extent of scalp involvement [9]. In adults with localized patchy AA affecting less than 50% of the scalp, intralesional corticosteroid therapy remains a widely accepted first-line treatment [9,10]. Intralesional triamcinolone acetonide (ILTA) is commonly administered at concentrations ranging from 2.5 to 10 mg/mL at intervals of approximately 6–12 weeks [9,10]. In many ILTA treatment protocols, 10 mg/mL is considered the conventional concentration for scalp lesions, whereas 5 mg/mL represents a lower-dose regimen that may reduce the risk of local adverse effects such as dermal atrophy. Lower concentrations such as 2.5 mg/mL are typically reserved for sensitive areas, including the eyebrows and face.

We report a case of localized AA in a Malaysian patient who demonstrated rapid hair regrowth within three weeks following a single treatment session of ILTA at 5 mg/mL.

CASE PRESENTATION

A 32-year-old Chinese woman presented to our clinic in May 2025 with a history of sudden hair loss. She had no known medical illnesses and had one child. She was a full-time mother and reported no family history of hereditary hair loss or autoimmune disease. On examination, patchy hair loss was noted predominantly over the left parietal and frontal regions of the scalp (**Figures 1** and **2**). The underlying scalp appeared normal, with no erythema, scaling, or signs of infection. No nail abnormalities, including pitting or trachyonychia, were observed.

No other abnormalities were noted on systemic examination. Routine laboratory investigations, including complete blood count, serum ferritin, thyroid-stimulating hormone (TSH), renal function tests, liver function tests, and vitamin D levels, were within normal limits. There was no history of traction hairstyles, chemical exposure, or recent severe illness. Hair pull test performed at the periphery of the lesion was mildly positive.

Severity of AA was assessed using the Severity of Alopecia Tool (SALT) score and graded according to the National AA Foundation guidelines as follows: S0, no hair loss; S1, <25%; S2, 26–50%; S3, 51–75%; S4, 76–99%; and S5, 100% hair loss (alopecia totalis) [11]. The SALT score in this patient was <21%, consistent with S1 disease severity.

Additional investigations such as trichogram or scalp biopsy were not performed due to limited equipment availability. However, a clinical diagnosis of localized AA was made based on the characteristic presentation of well-demarcated, non-scarring patches of hair loss.

Figure 1. Hair loss over the left parietal scalp

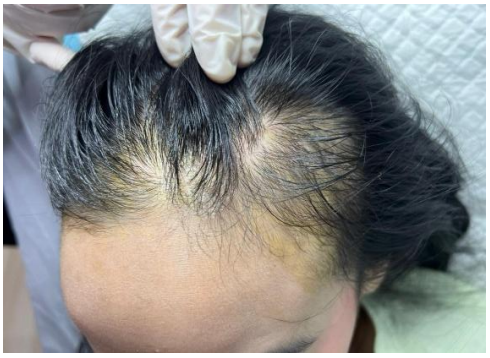

Figure 2. Hair loss over the frontal scalp.

MANAGEMENT AND OUTCOME

The patient was treated with ILTA (Shincort, Yung Shin Pharmaceutical Industrial Co., Ltd., Taiwan). A total of 2 mL of triamcinolone acetonide (5 mg/mL) was delivered via multiple 0.1 mL intradermal injections spaced approximately 1 cm apart across the affected scalp. A 1 cc syringe was used to minimize leakage between the syringe and needle, and a 34-gauge, 1.5 mm needle was selected for optimal delivery. Sterile saline was used as the diluent due to its lower associated stinging sensation. To reduce discomfort, topical lidocaine cream was offered 30 minutes prior to treatment.

After the first treatment session, the patient was scheduled for reassessment at 3 weeks. At follow-up, marked hair regrowth was observed, with the SALT score reduced to

approximately 3–4%, corresponding to an estimated >80% reduction in scalp hair loss from baseline (**Figures 3** and **Figure 4**). She reported satisfaction with the treatment. The patient was initially scheduled for subsequent treatment sessions at three-week intervals. However, due to high satisfaction with the outcome after the first session, she did not return for further follow-up. Consequently, long-term treatment outcomes and relapse risk could not be evaluated.

Figure 3. Hair regrowth over the left parietal scalp.

Figure 4. Hair regrowth over the frontal scalp.

DISCUSSION

AA is an autoimmune disorder characterized by patchy, non-scarring hair loss resulting from immune-mediated inflammation targeting hair follicles. Treatment strategies vary according to disease severity and extent. For localized disease involving less than 50% of the scalp, ILTA (2.5–10 mg/mL) is strongly recommended as a first-line option [9]. In Malaysia, however, evidence regarding the use and optimal dosing of ILTA for AA remains limited.

In the present case, improvement in AA was observed after a single session of 5 mg/mL ILTA. The rapid hair regrowth may be attributed to early disease detection and treatment while hair follicles remained viable. In addition, localized disease with limited scalp involvement typically responds more favorably than extensive disease.

Although ILTA at 10 mg/mL has been shown to produce faster results, as early as 4 weeks compared with 5 mg/mL, it is also associated with a higher risk of adverse effects [12,13]. In contrast, ILTA at 5 mg/mL may be a more suitable option for patients with focal AA, given its more favorable risk–benefit profile [14].

No adverse effects were observed following treatment, and the patient reported satisfaction with the outcome. However, no follow-up was conducted as the patient did not return for monitoring. Although ILTA is generally well tolerated, potential adverse effects should be considered. Proper injection technique and appropriate dosing are essential, as excessive volume per site, frequent injections, or superficial administration may increase the risk of cutaneous atrophy and compromise treatment efficacy [16]. Continued monitoring is recommended, as recurrence may occur.

CONCLUSION

ILTA is a widely used and recommended treatment for localized AA. This case demonstrates that ILTA at 5 mg/mL may achieve rapid and satisfactory hair regrowth, particularly when the condition is identified and treated early. Further studies involving larger populations and longer follow-up are warranted to better evaluate optimal dosage, treatment outcomes, adverse effects, and recurrence of AA following ILTA therapy.

ACKNOWLEDGEMENT

The authors would like to express their sincere gratitude to the patient involved in this case report for her consent and valuable contribution to advancing the understanding of this condition.

CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

1. Pratt CH, King LE, Messenger AG, Christiano AM, Sundberg JP. Alopecia areata. Nature Reviews Disease Primers. 2017;3(1):17011. DOI:10.1038/nrdp.2017.11
2. Strazzulla LC, Wang EH, Avila L, Sicco KL, Brinster N, Christiano AM, et al. Alopecia areata: disease characteristics, clinical evaluation, and new perspectives on pathogenesis. Journal of the American Academy of Dermatology. 2018;78(1):1-2. DOI:10.1016/j.jaad.2017.04.1141
3. D'Ovidio R. Alopecia areata: news on diagnosis, pathogenesis and treatment. Giornale Italiano Di Dermatologia E Venereologia. 2014;149(1): 25-45.
4. Villasante Fricke AC, Miteva M. Epidemiology and burden of alopecia areata: a systematic review. Clinical, Cosmetic and Investigational Dermatology. 2015;8:397–403. DOI:10.2147/CCID.S53985.
5. Chu SY, Chen YJ, Tseng WC, Lin MW, Chen TJ, Hwang CY, et al. Comorbidity profiles among patients with alopecia areata: the importance of onset age, a nationwide population-based study. Journal of the American Academy of Dermatology. 2011;65(5):949-56. DOI:10.1016/j.jaad.2010.08.032
6. Darwin E, Hirt PA, Fertig R, Doliner B, Delcanto G, Jimenez JJ. Alopecia areata: review of epidemiology, clinical features, pathogenesis, and new treatment options. International Journal of Trichology. 2018;10(2):51-60. DOI:10.4103/ijt.ijt_99_17
7. Żeberkiewicz M, Rudnicka L, Malejczyk J. Immunology of alopecia areata. Central European Journal of Immunology. 2020; 45(3):325-33. DOI:10.5114/ceji.2020.101264
8. Kuty-Pachecka M. Psychological and psychopathological factors in alopecia areata. Psychiatria Polska. 2015;49(5):955-64. DOI:10.12740/PP/39064
9. Harries MJ, Ascott A, Asfour L, Farrant P, Hale G, Holmes S, et al. British Association of Dermatologists living guideline for managing people with alopecia areata 2024. British Journal of Dermatology. 2025;192(2):190-205. DOI:10.1093/bjd/ljae385
10. Lee S, Lee WS. Management of alopecia areata: updates and algorithmic approach. The Journal of Dermatology. 2017;44(11):1199-211. DOI:10.1111/1346-8138.13933
11. Al-Dhubaibi MS, Alsenaid A, Alhetheli G, Abd Elneam AI. Trichoscopy pattern in alopecia areata: a systematic review and meta-analysis. Skin Research and Technology. 2023;29(6): e13378. DOI:10.1111/srt.13378
12. Muhaidat JM, Al-Qarqaz F, Khader Y, Alshiyab DM, Alkofahi H, Almalekh M. A retrospective comparative study of two concentrations of intralesional triamcinolone acetonide in the treatment of patchy alopecia areata on the scalp. Clinical, Cosmetic and Investigational Dermatology. 2020;13:795-803. DOI:10.2147/CCID.S280855
13. Rajan MB, Bhardwaj A, Singh S, Budania A, Bains A, Thirunavukkarasu P, et al. Identification of novel step-up regimen of intralesional triamcinolone acetonide in scalp alopecia areata based on a double-blind randomized controlled trial. Dermatologic Therapy. 2021;34(1):e14555. DOI:10.1111/dth.14555
14. Yee BE, Tong Y, Goldenberg A, Hata T. Efficacy of different concentrations of intralesional triamcinolone acetonide for alopecia areata: a systematic review and meta-analysis. Journal of the American Academy of Dermatology. 2020;82(4):1018-21. DOI:10.1016/j.jaad.2019.11.066
15. Kumaresan M. Intralesional steroids for alopecia areata. International Journal of Trichology. 2010;2(1):63-5. DOI:10.4103/0974-7753.66920