SKIN

BRIEF ARTICLE

Topical Triumph: A Case Report of Severe Generalized Plaque Psoriasis with Rapid Resolution on Tapinarof

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ABSTRACT

Introduction: Plaque psoriasis is a chronic, immune-mediated disease characterized by erythematous, scaly plaques that can often have a significant impact on quality of life. Severe cases often require systemic or biologic therapy, though newer topical agents, like tapinarof, are increasing the number of options.
Case Report: A 54-year-old female with a long history of generalized plaque psoriasis presented with severe disease, including lesions on the scalp, trunk, groin, and extremities. Her Psoriasis Physician Global Assessment (PGA) score was severe with a pruritus intensity of 10/10. Initial therapy consisted of clobetasol cream twice daily for two weeks, followed by daily application of tapinarof 1% cream. She had also been prescribed calcipotriene; however, it was never used. At four-month follow-up, the patient reported consistent daily use of tapinarof with complete clearance of psoriatic lesions and resolution of pruritus (0/10). She expressed high satisfaction with the therapeutic outcome, and biologic therapy was deferred.
Conclusion: This case highlights the potential of tapinarof monotherapy, after brief topical steroid use, to achieve rapid and complete clearance of severe generalized plaque psoriasis, potentially avoiding the need for systemic or biologic escalation.

INTRODUCTION

Plaque psoriasis is a chronic, immune-mediated dermatologic condition characterized by erythematous, scaly plaques and often associated with significant pruritus and an impaired quality of life. Traditional topical therapies such as corticosteroids and vitamin D analogues remain first-line for mild-to-moderate disease but are often inadequate in refractory or severe cases with extensive involvement, where systemic agents or biologics are typically required.

Tapinarof 1% cream is a topical aryl hydrocarbon receptor (AhR) agonist, approved in 2022 as a therapeutic option for adults with plaque psoriasis, including those with moderate-to-severe disease who may otherwise be candidates for systemic or biologic therapy.[1-5] Tapinarof's mechanism involves modulating proinflammatory cytokines (notably IL-17) and normalizing skin barrier proteins, offering a non-steroidal alternative with demonstrated efficacy in phase 2 and 3 trials.[6-8] While clinical studies have focused primarily on mild-to-moderate

disease, real-world evidence of tapinarof in severe cases remains limited.

Here, we present a case of a 54-year-old female with severe generalized plaque psoriasis who achieved complete clearance and symptomatic resolution with tapinarof, following initial clobetasol treatment, thereby avoiding escalation to systemic or biologic therapy.

CASE REPORT

A 54-year-old female presented to dermatology clinic on March 20, 2025, with a long history of generalized plaque psoriasis. She reported chronic pruritus and widespread psoriatic lesions affecting the scalp, hands, bilateral arms, legs, groin, and trunk (**Figure 1**). Her symptoms significantly impaired sleep and daily functioning. The Psoriasis Physician Global Assessment (PGA) was scored as severe, and a pruritus intensity rated 10 out of 10.

Initial management included clobetasol 0.05% cream applied twice daily for two weeks, followed by transition to tapinarof 1% cream (Vtama) applied once daily. She had also been prescribed calcipotriene; however, this was not used. Given the severity of disease, biologic therapy was considered pending laboratory work-up.

At follow-up on July 24, 2025, the patient reported completing the two-week course of clobetasol followed by consistent daily application of tapinarof. She had not initiated calcipotriene. Laboratory evaluation was completed, but biologic therapy was deferred due to clinical improvement.

The patient demonstrated complete clearance of psoriatic lesions across all previously affected body sites. Pruritus intensity decreased from 10/10 to 0/10. The patient expressed a high level of satisfaction with her clinical improvement and opted to continue tapinarof monotherapy. No adverse events were reported.

DISCUSSION

This case highlights the potential of tapinarof 1% cream as an effective monotherapy for plaque psoriasis, even in patients with severe disease. In pivotal phase 3 trials (PSOARING 1 and 2), tapinarof demonstrated significant efficacy, with 35–40% of patients achieving a Physician's Global Assessment (PGA) of 0 (clear) or 1 (almost clear) and a ≥2-grade improvement at 12 weeks. While some patients with severe disease achieved "Clear" or "Almost Clear" status, the majority did not reach complete clearance.[1,4,6,9] Long-term extension data (PSOARING 3) highlights the drug's sustained effectiveness, with 40.9% of patients achieving complete clearance and a mean remission period of 130 days off therapy, without evidence of tachyphylaxis or rebound.[2-3,10-11] Importantly, tapinarof also led to rapid and sustained improvement in pruritus, as measured by patient-reported outcomes.[6-7]

Tapinarof is well tolerated, with most adverse events (folliculitis, contact dermatitis, headache) being mild to moderate and rarely leading to discontinuation.[1,4,6,10] Unlike topical corticosteroids, tapinarof is not associated with skin atrophy or systemic side effects, and its use is not restricted by body surface area or duration.[1-2] Other topical agents, such as vitamin D analogues and calcineurin inhibitors, as well as phototherapy, provide variable benefit.[3-5] Systemic therapies (e.g., methotrexate, cyclosporine, apremilast) and biologics targeting IL-17, IL-23, or TNF-α are highly

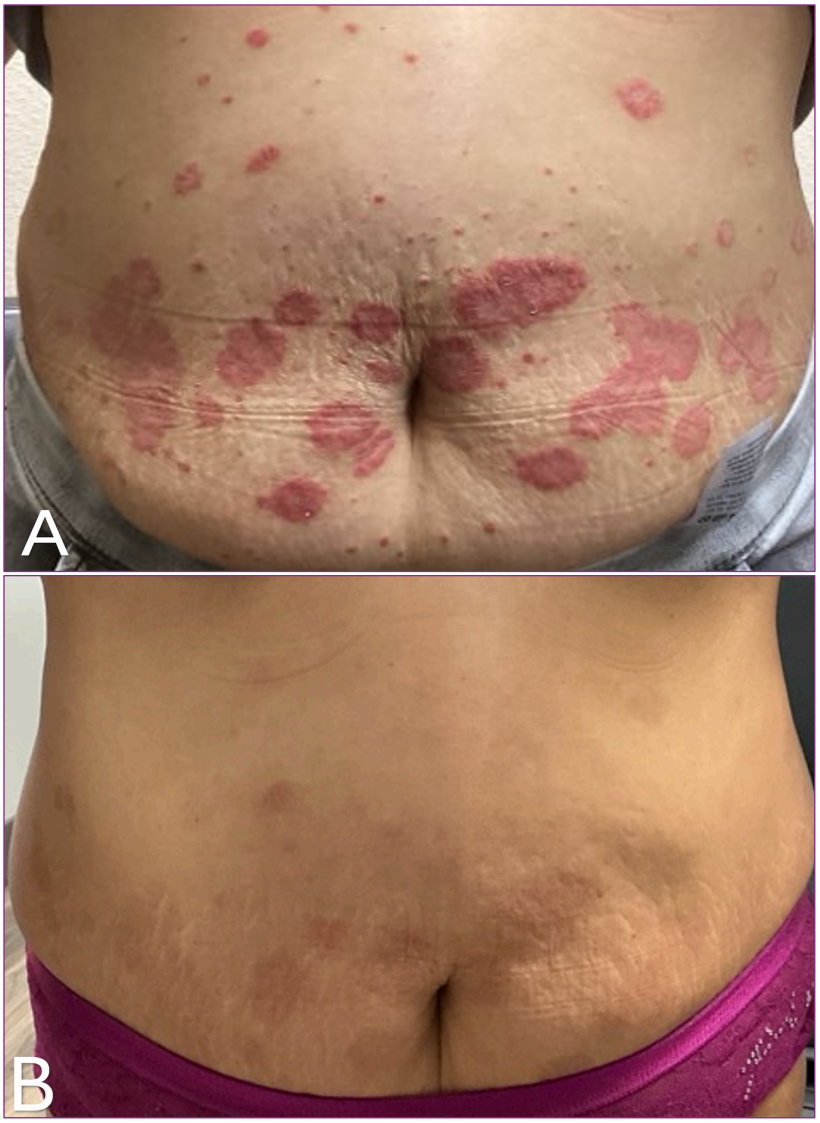

Figure 1. Clinical pictures of psoriatic plaques on abdomen demonstrating (**A**) before and (**B**) after treatment with tapinarof 1% cream.

effective but carry higher costs, monitoring requirements, and potential adverse effects.[2-4,9] In this context, tapinarof offers a valuable steroid-free option that may defer or replace systemic escalation for select patients.[2-3,9] In this patient, initial clobetasol therapy with transition to tapinarof, resulted in complete disease clearance and pruritus resolution, preventing the need for biologic therapy. This aligns with emerging evidence that tapinarof may fill a critical gap for patients who are refractory to or intolerant of conventional topicals, or who wish to avoid systemic immunosuppression.[2-4,9]

Currently, no published reports describe complete clearance of severe generalized psoriasis with tapinarof monotherapy. The rapid and complete clinical improvement observed here underscores the potential role of tapinarof in broader patient populations, including those traditionally managed with systemic or biologic therapy. Patient satisfaction was high, and avoidance of

biologic initiation also highlights potential cost-effectiveness.

In summary, this case supports the use of tapinarof 1% cream as a highly effective, well-tolerated, steroid-free topical option for severe generalized plaque psoriasis, with the potential to defer or avoid biologic therapy. This is a single case, and the continued therapeutic efficacy remains unknown. Additionally, the patient's short course of clobetasol prior to tapinarof initiation may have contributed to initial improvement, although sustained clearance was observed with tapinarof alone. The data collected in the aforementioned trials are congruent with the clinical response witnessed in this case. Continued real-world investigation is encouraged to further define its optimal place in the therapeutic algorithm, particularly in patients with extensive disease or prior systemic therapy exposure.

CONCLUSION

This case illustrates the potential of tapinarof to induce complete clearance in severe generalized plaque psoriasis, thereby avoiding escalation to systemic therapy. Tapinarof continues to represent a valuable addition to the therapeutic armamentarium for psoriasis across the disease severity spectrum. Further real-world studies are encouraged to confirm efficacy and durability in severe cases.

Conflict of Interest Disclosures: JGA has no conflicts of interest to declare. GHL has served as a research investigator, clinical advisor, or speaker for Abbive, Arcutis, Bristol-Meyers-Squibb, Castle Biosciences, Galderma, Novartis, Pfizer, Sanofi-Regeneron, Takeda, and UCB.

Funding: None

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References:

1. U.S. Food and Drug Administration. VTAMA (tapinarof) cream, 1%. Updated May 28, 2025. Accessed September 20, 2025. https://www.fda.gov/
2. Armstrong AW, McConaha JL. Tapinarof cream 1% once daily for the treatment of adults with mild to severe plaque psoriasis: a novel topical therapy targeting the aryl hydrocarbon receptor. *J Manag Care Spec Pharm*. 2023;29(12-a Suppl):S1-S13. doi:10.18553/jmcp.2023.29.12-a.s1
3. Bobonich M, Gorelick J, Aldredge L, et al. Tapinarof, a novel, first-in-class, topical therapeutic aryl hydrocarbon receptor agonist for the management of psoriasis. *J Drugs Dermatol*. 2023;22(8):779-784. doi:10.36849/jdd.7317
4. Nogueira S, Rodrigues MA, Vender R, Torres T. Tapinarof for the treatment of psoriasis. *Dermatol Ther*. 2022;35(12):e15931. doi:10.1111/dth.15931
5. Bissonnette R, Stein Gold L, Rubenstein DS, Tallman AM, Armstrong A. Tapinarof in the treatment of psoriasis: a review of the unique mechanism of action of a novel therapeutic aryl hydrocarbon receptor-modulating agent. *J Am Acad Dermatol*. 2021;84(4):1059-1067. doi:10.1016/j.jaad.2020.10.085
6. Lebwohl MG, Stein Gold L, Strober B, et al. Phase 3 trials of tapinarof cream for plaque psoriasis. *N Engl J Med*. 2021;385(24):2219-2229. doi:10.1056/NEJMoa2103629
7. Stein Gold L, Bhatia N, Tallman AM, Rubenstein DS. A phase 2b, randomized clinical trial of tapinarof cream for the treatment of plaque psoriasis: secondary efficacy and patient-reported outcomes. *J Am Acad Dermatol*. 2021;84(3):624-631. doi:10.1016/j.jaad.2020.04.181