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Case Report

Adjunctive use of VTAMA (tapinarof) 1% cream in the management of new-onset scalp psoriasis in a patient with fistulizing Crohn's disease on infliximab

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ABSTRACT

Psoriasis (PsO) frequently coexists with inflammatory bowel disease (IBD), including Crohn's disease (CD). Patients with CD on tumor necrosis factor (TNF)-alpha inhibitors, such as infliximab (IFX), are at an increased risk for developing PsO. The paradoxical development of PsO in this patient population presents a therapeutic challenge, particularly in those with fistulizing CD, as switching to IL-23 inhibitors is not a viable option due to their reduced efficacy in promoting fistula healing. Effective treatment strategies that can manage PsO without compromising CD control are therefore necessary. Here we report a case of new onset scalp PsO treated with tapinarof 1% cream with significant improvement noted after 2 weeks of application and maintains clearance of scalp PsO with biweekly application.

Keywords: Psoriasis, Crohn's disease, VTAMA (tapinarof) 1% cream, Inflammatory bowel disease, Infliximab

INTRODUCTION

PsO and CD and exhibit overlapping immunologic mechanisms, notably T-cell mediated inflammation and are shaped by both genetic and environmental factors, which may underlie their co-occurrence, although the precise pathophysiologic processes are not completely elucidated.[1,2,4,20] Studies suggest that individuals with CD are at a higher risk of developing PsO compared to the general population, with rates ranging from 3% to 10%.[2-6]

Furthermore, PsO develops in 1-2% of patients with CD treated with IFX, likely due to immune modulation resulting from TNF-alpha inhibition.[7-11] This paradox is thought to occur because while IFX suppresses TNF-alpha to manage CD, its inhibition may disrupt immune balance, promote Th17 activation, and increase IL-17 production, ultimately triggering psoriasis, particularly in genetically predisposed individuals.[8,9,13] In patients with fistulizing Crohn's disease (FCD), continued use of TNF-alpha inhibitors is critical, as discontinuation may lead to disease relapse and worsening fistula-related complications.[14-17] TNF-alpha inhibitors are highly effective in promoting fistula healing and maintaining overall disease control.[14-17] Given their critical role in managing FCD, switching to IL-23 inhibitors in patients with both FCD and PsO is not recommended, as IL-23 inhibitors are less effective than TNF-alpha inhibitors in promoting fistula healing.[14-17]

This highlights the need for alternative therapeutic approaches to effectively manage both conditions without compromising the control of CD. Topical therapies, such as VTAMA (tapinarof) 1% cream, which has shown to have remittive effects on psoriasis, offer an effective topical treatment option that may surpass the efficacy of conventional topical treatments, such as topical corticosteroids and vitamin D analogs without compromising the control of Crohn's disease.[18,19,24]

CASE REPORT

This case report presents the successful treatment of new-onset scalp PsO in a patient with FCD on IFX with VTAMA (tapinarof) 1% cream. This is a 60-year-old man with a past medical history of FCD stable on IFX who presented with new onset scaling and erythematous papules and plaques on the scalp. A biopsy was performed which demonstrated psoriasiform epidermal hyperplasia which were changes consistent with PsO. He was initially treated with ciclopirox 1% shampoo and fluocinolone 0.01% topical oil for 8 weeks without improvement.

He was not a candidate for adjunct DMARD therapy as he had previously tried and failed methotrexate in the past for CD and resulted in hospitalization for fistula formation and immunosuppression. Further, he was not a candidate for changing classes of biologics from a TNF-alpha to an IL-23 inhibitor as it may compromise his control of FCD. The patient was then started on tapinarof 1% cream for his scalp PsO and showed significant improvement in the scaling and erythema of his scalp two weeks after starting topical therapy without side effects (Figure 1). He continues to maintain control by applying tapinarof 1% cream with biweekly application.

DISCUSSION

PsO and CD share significant immunologic and inflammatory pathways, making their association of clinical relevance.[1,2,7] Both conditions are driven by a dysregulated immune response, involving proinflammatory cytokines such as TNF-α, IL-12, and IL-23, which are implicated in the pathogenesis of both diseases.[1,2,3,7,12,20] This overlap has led to observations of a higher prevalence of psoriasis in patients with CD, with certain inflammatory mediators playing a critical role in both conditions' pathophysiology.[4,5,6,21]

Studies have demonstrated that TNF inhibitors such as infliximab and adalimumab may trigger or exacerbate psoriasis in susceptible individuals.[8,9,10,14] This paradox is thought to be related to the differential effects of TNF inhibitors on specific cytokine pathways, which might enhance Th17-driven immune responses known to play a pivotal role in psoriasis in genetically predisposed individuals.[1,8,9,10,12,13]

VTAMA (tapinarof) 1% cream an aryl hydrocarbon receptor (AhR) agonist, exerts therapeutic effects in plaque psoriasis through modulation of the immune response, including potential downregulation of pro-inflammatory cytokines such as IL-17, IL-22, and IL-6, thereby alleviating keratinocyte hyperproliferation and inflammation; however, the precise mechanisms underlying its action remain to be fully elucidated.[18,19] This case illustrates the effective use of tapinarof 1% cream for treating new-onset scalp psoriasis in a patient with FCD on IFX. PsO is a known comorbidity in IBD, and its development during TNF-alpha inhibitor therapy presents a therapeutic challenge as these medications are essential for controlling CD.[1,2,8,9,13] This is particularly true in patients with fistulizing disease where TNF-alpha inhibitors play a crucial role in maintaining disease remission.[15-17] For patients like this, switching to IL-23 inhibitors is not an option since these therapies are less effective for fistula healing.[14-17] Therefore, topical therapies, such as tapinarof 1% cream, provide a promising alternative. Tapinarof works by modulating local immune responses, potentially reducing IL-17 and IL-22, key cytokines in PsO, without affecting systemic immune function.[18,19] Tapinarof 1% cream offers a promising alternative for treating PsO without interfering with CD management.

Tapinarof 1% cream offers several potential benefits compared to traditional topical treatments such as vitamin D analogs and corticosteroids for scalp psoriasis. As an AHR agonist, it modulates immune responses by reducing key pro-inflammatory cytokines (IL-17 and IL-22) that may lead to faster and more sustained symptom control compared to vitamin D analogs, which are associated with a slower onset of action and higher incidences of cutaneous inflammation.[18,19,24-26]

Additionally, tapinarof 1% cream has a favorable safety profile since it does not carry the risk of corticosteroid-related side effects making it a viable option for long-term use on sensitive areas like the scalp. Unlike topical corticosteroids, which can induce tachyphylaxis and atrophy with long-term use, tapinarof's unique mechanism of action helps circumvent these complications.[23-25] With minimal systemic absorption, tapinarof also avoids potential systemic immune modulation, which is particularly important for patients with comorbid conditions like IBD. These attributes suggest that tapinarof 1% cream may be a valuable alternative to traditional topical therapies in managing PsO in this unique patient population.[18-20]

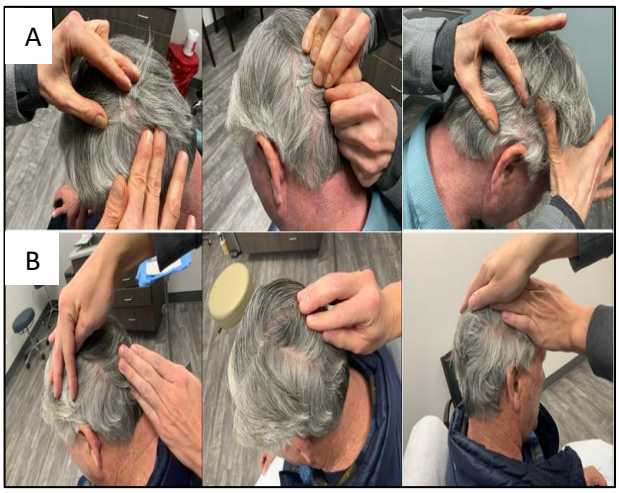

Figure 1: (A) Scalp psoriasis baseline (B) Two weeks after initiating VTAMA (tapinarof) 1% cream.

CONCLUSION

This demonstrates a case of successful use of VTAMA (tapinarof) 1% cream in the management of new-onset scalp PsO in a patient with FCD on IFX. Tapinarof 1% cream provided effective symptom control, with significant improvement in scaling and erythema observed within two weeks of treatment, without any adverse effects. Given its localized action and favorable safety profile, tapinarof 1% cream offers a promising alternative to traditional topical treatments in patients with concurrent PsO and CD, particularly those on TNF alpha inhibitors who are not candidates to change systemic therapy.

This case report advances our understanding by emphasizing the importance of targeted topical therapies like tapinarof in managing scalp PsO in patients with IBD, offering a novel approach for PsO control in this complex patient population. Further research is warranted to better understand the long-term safety and efficacy of tapinarof in this patient population, but the initial outcomes are encouraging. Tapinarof 1% cream provides effective symptom control with a remittive effect and may offer a viable option for managing PsO without interfering with CD management, making it an important addition to the therapeutic armamentarium in this unique patient population.

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