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DERMATOLOGIC THERAPY WILEY

LETTER

Topical finasteride: A potential therapeutic option for hidradenitis suppurativa

Dear Editor,

Hidradenitis suppurativa (HS) is a multifactorial disease characterized by the progression of nodules to deep-seated lesions, with subsequent scarring and suppuration.[1–4] The exact etiology of HS is still unproven. Multiple therapies have been described, including topical, systemic, surgical, and physical treatments.[1,5,6] At present, topical HS therapy include cleansers, keratolytic agents, and antibiotics.[7] Androgens are implicated in skin physiology and may have a role in HS worsening.[8] Consequently, the administration of systemic antiandrogen therapy were described in a small population.[5,8] To the best of our knowledge, this is the first study that describes topical antiandrogen therapy in HS. Here we describe 4 patients that received a commercially available topical finasteride on 2–3 HS affected sites at dosage 50 μl of 2275 mg/ml for each area (Table 1). Patients did not alter their hygiene or antiseptic habits during topical finasteride application.

Case 1: A 28-year-old man affected by HS for 12 years, with lesions in axillae, gluteal and inguinal region. He received multiple HS treatments with disease recurrence and discontinuation (Table 1). Recently he experienced frequent inflammatory episodes of three nodules in the left axilla and one nodule in the right axilla. Disease severity[1,9] was: Hurley II, international HS severity (IHS4): 6, dermatology life quality index (DLQI): 16. Daily topical finasteride was introduced on both axillae. Three months later, a significant improvement was observed (IHS4: 2, DLQI: 8, Figure 1A–D).

Case 2: A 26-year-old man affected by HS for 4 years with lesions in axillae, nuchal, inguinal and gluteal folds (Table 1). He was also affected by Down syndrome and androgenic alopecia. Topical finasteride was introduced on the scalp and on the affected axillary region (Hurley I, IHS4: 2, DLQI: 12). Three months later, a complete remission of the phlogistic axillary nodules was observed (IHS4: 0),

TABLE 1 Patients' epidemiologic features and HS therapies

Epidemiologic features	BMI	Smoker	Previous HS systemic therapies	Current HS therapies
Case 1				
Age: 26 Sex: male Weight: 95 kg Height: 150 cm	42.2 kg/m^2	No	Lymecycline, zinc supplementation, triamcinolone injection	Topical finasteride
Case 2				
Age: 47 Sex: male Weight: 75 kg Height: 178 cm	23.7 kg/m^2	Yes	Minocycline, doxycycline, ciprofloxacin, clarithromycin, azithromycin, clindamycin + rifampicin, isotretinoin, acitretin	Adalimumab 40 mg s.c. weekly injection and topical finasteride
Case 3				
Age: 28 Sex: male Weight: 100 kg Height: 184 cm	29.5 kg/m^2	Yes	Lymecycline, zinc supplementation, clindamycin + rifampicin, amoxicillin clavulanic acid combination, moxifloxacin, doxycycline	Topical finasteride
Case 4				
Age: 46 Sex: male Weight: 80 kg Height: 181 cm	24.4 kg/m^2	No	Lymecycline, zinc supplementation, clindamycin + rifampicin	Adalimumab 40 mg s.c. weekly injection and topical finasteride

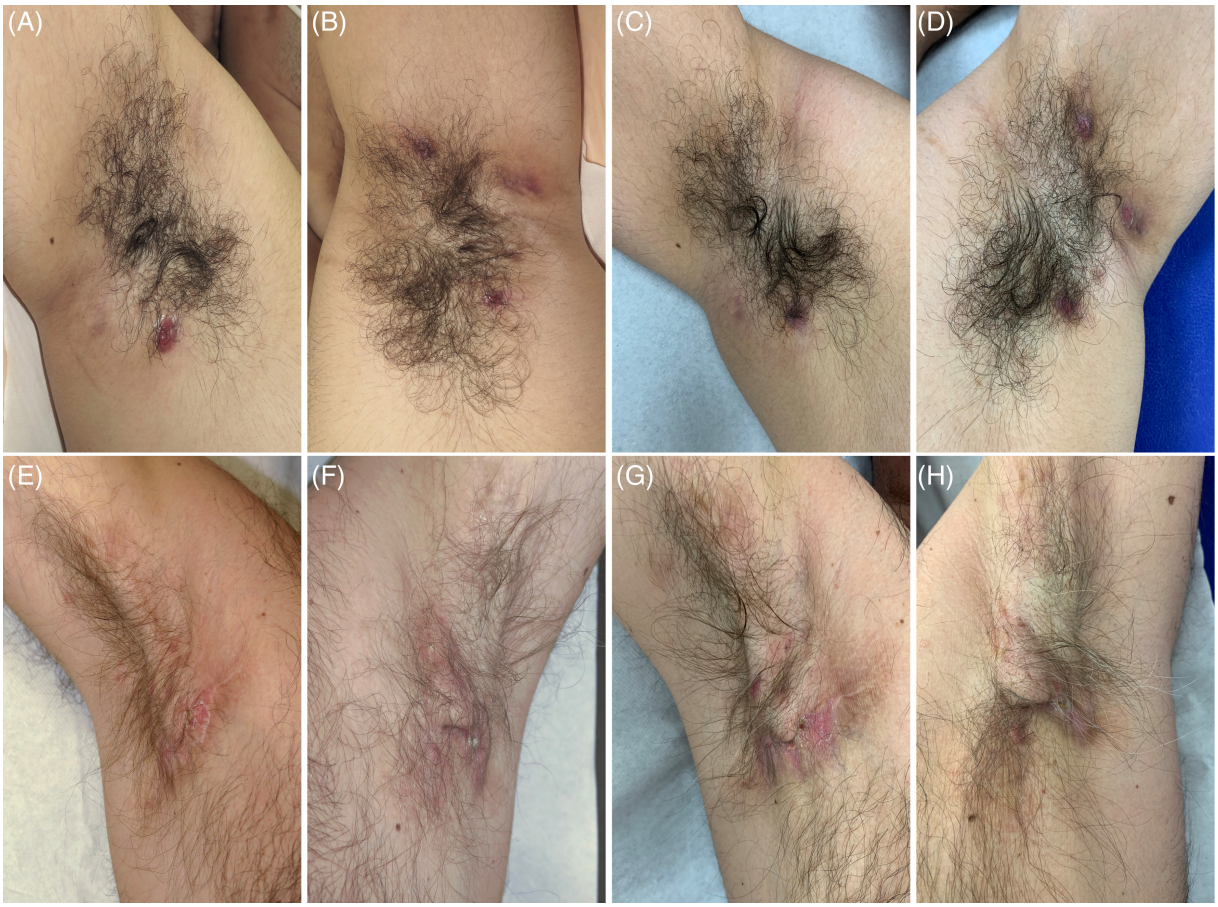

FIGURE 1 Clinical images of the left and right axillary folds of two patients affected by HS (A–h). Images were acquired before (A, B, E, F) and after 3 months of topical application of finasteride (C, D, G, H). It is possible to recognize the presence of 4 inflammatory nodules in the axillary regions of the first patient (A, B) and the remission of acute inflammation with the persistence of postinflammatory erythema after therapy (C, D). We can observe two inflammatory fistula in the axillary regions of the patient presented as case number 3 (E, F) and the remission of acute inflammation in both areas after 3 months of topical application of finasteride (G, H).

associated with an improvement of the quality of life (DLQI: 3) and of his androgenic alopecia.

Case 3: A 47-year-old man affected by HS for 22 years with lesions in axillae, inguinal and gluteal folds, and scalp. Previous treatments included several oral antibiotics and oral retinoids (Table 1). He was prescribed adalimumab therapy in January 2019, but in the last year a progressive worsening was observed with frequent inflammatory episodes (Hurley II, IHS4: 9, DLQI: 18). Topical finasteride was introduced on the scalp and on both axillae, maintaining Adalimumab therapy. Twelve weeks later, a significant improvement of HS was detected (IHS4: 2, DLQI: 4, Figure 1E–H).

Case 4: A 46-year-old man, affected by HS for 30 years with lesions in nuchal fold, scalp, gluteal, and groin. The patient received multiple antibiotic treatments (Table 1). Adalimumab therapy was prescribed in September 2021. After 4 months initial improvement, he experienced an increased frequency of nodular inflammatory lesions in the nuchal folds and groin (Hurley II, IHS4: 3, DLQI: 8). Topical finasteride was introduced on the nuchal fold and groin, maintaining Adalimumab. Three months later, an almost complete remission of the inflammatory lesions was observed in association a slight improvement in quality of life (IHS4: 1, DLQI: 4).

In our small cohort of patients, we observed clinical improvement of HS treated areas and patients' quality of life after 3 months topical finasteride therapy on the affected skin regions. Average IHS4 and DLQI reduction were 3.75 and 8.5 respectively, while Hurley stage did not change over time.

Androgens may influence HS in several ways, but the current recommendations on hormonal therapies are based on limited evidence. Topical finasteride, inhibiting local hyperandrogenism caused by in-situ production of potent androgens, may be a promising option for HS therapy, but larger studies are needed to demonstrate its role.

AUTHOR CONTRIBUTIONS

Marco Manfredini conceived of the presented idea and wrote the manuscript with support from Francesca Farnetani and Giovanni Pellacani. Antonio Alma, Linda Pongetti, Alberto Sticchi, and Erica Baschieri retrieved the data and summarized them. All authors discussed the results and contributed to the final manuscript.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

PATIENT CONSENT STATEMENT

The patients in this manuscript have given signed informed consent.

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