

Use of topical clascoterone for the treatment of hidradenitis suppurativa



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INTRODUCTION

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease of the hair follicle that causes debilitating recurrent and painful nodules, abscesses, fistulae, sinus tracts, foul smelling drainage, and scars, primarily in the axillary, inguinal, inframammary, and perianal areas, leading to patient embarrassment and poor quality of life.¹ Despite estimates of prevalence of up to approximately 4%,^{1,2} there is currently only 1 Food and Drug Administration–approved treatment, the tumor necrosis factor- α inhibitor adalimumab.^{3,4} Off-label treatments typically include topical and systemic antibiotics, immunosuppressants, systemic hormone-modulating therapies, and surgery; yet, many patients experience persistent disease,^{4,5} indicating a need for additional therapies. Clascoterone (cortexolone 17 α -propionate) cream 1%, approved for the treatment of acne vulgaris, competitively inhibits the binding of dihydrotestosterone (DHT) to androgen receptors.⁶ In this article, we present a case of HS demonstrating a positive response to treatment with topical clascoterone monotherapy.

CASE REPORT

A 23-year-old woman presented to our dermatology clinic with more than a 5-year history of Hurley stage 1 HS. She had painful lesions appearing primarily during the perimenstrual period in the inguinal folds and buttocks, with some lesions occasionally in her axillae. Initial treatment included clindamycin lotion 1% and 4% chlorhexidine external liquid, which did not control her disease. Her medical history was also notable for acne,

Abbreviations used:

DHT: dihydrotestosterone
HS: hidradenitis suppurativa

overactive bladder, depression, and anxiety, and she was a nonsmoker.

Given the association of disease activity with menstruation, an antihormonal treatment option was discussed; however, the patient was hesitant to start oral spironolactone because of her history of overactive bladder. Instead, clascoterone cream 1% was prescribed for maintenance, and 100-mg doxycycline tablets twice a day was prescribed for flares.

The patient reported significant improvement in the control of her HS after applying clascoterone cream 1% monotherapy once daily to the inguinal folds, mons pubis, and buttocks after 1 week of use. She discontinued all other topicals besides clascoterone cream, and she never required doxycycline because she experienced no intolerable lesions over the subsequent 3 months. Over this period, the patient was not taking any form of hormonal contraception or other antibiotics, and she made no lifestyle changes that could have contributed to her HS improvement.

Prior to starting clascoterone, 5 to 6 HS lesions would develop in the patient monthly just prior to the onset of menstruation that were 7/10 in terms of pain on a patient-assigned pain rating scale. While using the cream, she developed only 2 to 3 new lesions monthly that were 3/10 on the pain rating

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The patient described in this article gave consent for the publication of all medical information in print and online at the time of article submission to the journal, with the understanding that this information may be publicly available.

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scale. Additionally, she described that her lesions resolved more rapidly with the use of clascoterone, within 2 to 3 days. Overall, her quality of life improved; she can now wear pants without pain.

DISCUSSION

The pathogenesis of HS involves obstruction of the hair follicle within the pilosebaceous-apocrine unit, leading to inflammation and a robust immune response that results in the formation of the characteristic lesions.¹ Although the exact mechanism of how hormones are involved in HS is uncertain, there are several studies supporting their involvement, as many female patients experience perimenstrual flares, as in our patient, and diagnosis usually occurs around the age of puberty.² Because antiandrogen therapies such as spironolactone have been successful in treating HS^{2,7,8} and testosterone levels have not been significantly different compared with those in controls, it has been suggested that androgen involvement in HS is in the terminal conversion of testosterone to DHT.^{7,9} Given that clascoterone works locally at the site of application to target DHT, it may benefit patients with HS via a similar mechanism to how acne is improved, by reducing inflammation and sebum production.⁶ Clascoterone may be most effective in a subgroup of patients who perhaps have a hormonal component to their HS, as in our patient. Furthermore, it may also be an option in men to avoid the systemic side effects of spironolactone. Although additional studies must be conducted to elucidate the efficacy of treating HS with clascoterone, this topical therapy warrants further exploration as a potential treatment option for HS.

We thank the patient for granting permission to publish this information.

Conflicts of interest

Dr Rosmarin has received honoraria as a consultant for AbbVie, Abcuro, AltruBio, Arena, Boehringer-Ingelheim, Bristol Myers Squibb, Celgene, Concert, CSL Behring, Dermavant, Dermira, Incyte, Janssen, Kyowa

Kirin, Lilly, Novartis, Pfizer, Recludix, Regeneron, Revolo Biotherapeutics, Sanofi, Sun Pharmaceuticals, UCB, and VielaBio; has received research support from AbbVie, Amgen, Bristol Myers Squibb, Celgene, Dermira, Galderma, Incyte, Janssen, Lilly, Merck, Novartis, Pfizer, and Regeneron Pharmaceuticals Inc; and has served as a paid speaker for AbbVie, Amgen, Bristol Myers Squibb, Celgene, Dermavant, Incyte, Janssen, Lilly, Novartis, Pfizer, Regeneron Pharmaceuticals Inc., and Sanofi. Drs Moody and Alorainy and Author Cunningham have no conflicts of interest to declare.

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