



Contents lists available at ScienceDirect

Actas Dermo-Sifiliográficas

journal homepage: www.actasdermo.org

Letter to the Editor

Dissecting Cellulitis Associated With Hormone Therapy in a Transgender Man

To the Editor,

Dissecting cellulitis (DC) is a chronic, neutrophilic scarring alopecia that mainly affects the vertex and occipital areas of the scalp.¹ Its hallmark clinical features include papules, pustules, nodules, and abscesses. This condition predominantly afflicts young black men of African descent, with rare occurrences in women and children, as evidenced by limited reports.^{2,3} While the precise causes remain elusive, genetic, and environmental factors, local trauma, imbalance of the scalp microbiota, and androgens seem to play a role.^{2,4}

This is the case of a 55-year-old Fitzpatrick phototype IV transgender male on androgen hormone therapy. The patient had been on intra-muscular testosterone for over a decade and presented with a several-month history of scalp nodules, abscesses, pruritus, and alopecia on the vertex and mid-scalp (Fig. 1A). Trichoscopy examination was noticeable for broken hairs, pustules, 3D yellow dots, scaling, erythema, polytrichia, and areas with absent follicular openings (Fig. 1B, C).

The word “transgender” is a generic term to describe persons whose gender identity or expression differs from the biological sex assigned at birth (between 0.1% and 2% of the population).¹ These individuals may choose to undergo gender-affirming hormone therapy to align

their physical characteristics with their affirmed gender,⁶ which in our patient consisted of testosterone therapy.⁴ The biological plausibility between gender/sexual hormones and the disease has been proposed due to the remarkable male predominance of this condition.^{2,3,5} DC is part of the “follicular occlusion tetrad” wherein the obstruction of the follicular infundibulum is considered the initial event.^{1,3,5}

Testosterone affects the sebaceous gland primarily through local conversion to dihydrotestosterone (DHT) via 5-alpha reductase Type 1.⁶ Among all androgens, DHT binds cytoplasmic androgen receptors with the highest affinity. These receptors are expressed most abundantly in sebocytes, eccrine sweat epithelium, and dermal papilla cells and trigger a chain of metabolic events, which lead to excessive production of keratinocytes and sebum.⁶

The proliferating ductal lining cells, unable to escape the infundibulum of the pilosebaceous units, form a plug.^{6–8} Follicular dilation followed by rupture, keratin debris, and the presence of bacteria stimulates inflammation, abscess formation, and sinus tracts, eventually causing alopecia.^{1,5} The role of androgenic anabolic steroids on DC is further supported by Motosko et al. who described 1 case of abrupt onset of the disease in a male who used androgenic anabolic steroids for recreation for performance enhancement.⁹ Similarly, in our patient, the prolonged use of testosterone for gender-affirming purposes seemed to be the key factor inducing the disease in an otherwise unusual candidate.

DC is a rare condition that affects almost exclusively men with remarkable psychosocial impact. Its presence in a transgender man on androgenic therapy seems to be yet another piece of evidence of its

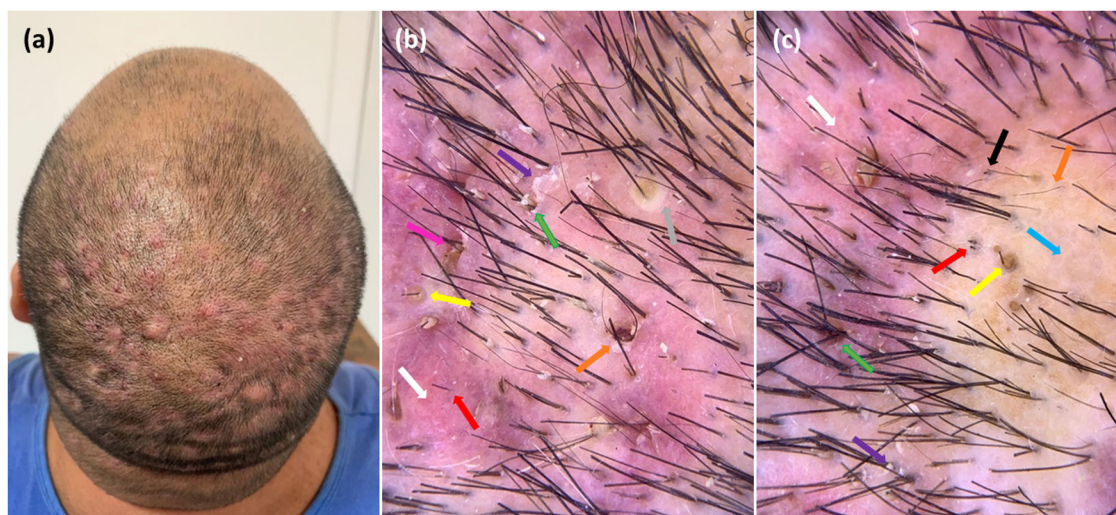


Fig. 1. (a) Clinical image of a 55-year-old transgender man on androgen hormone therapy showing nodules, pustules and alopecia on the vertex and mid-scalp. (b) Trichoscopic image demonstrating a three-dimensional yellow dot (yellow arrow), polytrichia (green arrow), a large brown dot (orange arrow), diffuse erythema (white arrow), cutaneous clefts with emerging hairs (pink arrow), peri- and interfollicular scale (purple arrow), and broken hairs (red arrow). (c) Trichoscopy image showing a three-dimensional yellow dot (yellow arrow), polytrichia (green arrow), structureless area (blue arrow), short regrowing hair (orange arrow), diffuse erythema (white arrow), peri and interfollicular scales (purple arrow), black dots (black arrow), and broken hair (red arrow).

<https://doi.org/10.1016/j.ad.2025.104555>

0001-7310/© 2025 Published by Elsevier España, S.L.U. on behalf of AEDV. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article as: J.L. Rodrigues Machado, M. Domingos Almeida, R.F. Cortez de Almeida et al., Dissecting Cellulitis Associated With Hormone Therapy in a Transgender Man, ACTAS Dermo-Sifiliográficas, <https://doi.org/10.1016/j.ad.2025.104555>

pathogenic puzzle. Trichoscopy is useful in detecting the evolutionary stages of DC, early diagnosis, and monitoring the patient during treatment.¹⁰

In conclusion, DC is a stigmatizing disease with a prominent impact on quality of life. With the modern use of androgen therapy for gender reassignment, physicians should be aware of the possibility of this condition in transgender males on hormone treatment to tackle its signs before irreversible damage occurs.

Statement

The patient in this manuscript has given written informed consent to publication of the case details.

Funding source

None.

Conflict of interest

The authors declare no conflict of interests regarding this paper.

Data availability statement

All data generated or analyzed during this study are included in this article. Further enquiries can be directed to the corresponding author.

References

1. Nussbaum D, Desai S, Nelson K, Saardi K, Friedman A. An up-to-date approach to the management of dissecting cellulitis. *J Drugs Dermatol*. 2022;21:800–802.

2. Melo DF, Ramos PM, Machado CJ, et al. Dissecting cellulitis in women: a retrospective multicenter study with 17 patients. *Int J Dermatol*. 2022;61:e427–e430.
3. Lee CN, Chen W, Hsu CK, Weng TT, Lee JY, Yang CC. Dissecting folliculitis (dissecting cellulitis) of the scalp: a 66-patient case series and proposal of classification. *J Dtsch Dermatol Ges*. 2018;16:1219–1226.
4. Gao JL, Sanz J, Tan N, King DS, Modest AM, Dommasch ED. Androgenetic alopecia incidence in transgender and gender diverse populations: a retrospective comparative cohort study. *J Am Acad Dermatol*. 2023;89:504–510.
5. Sung KY, Lee S, Jeong Y, Lee SY. Dissecting cellulitis of the scalp: a diagnostic challenge. *Arch Plast Surg*. 2020;47:631–632.
6. Motosko CC, Zakhem GA, Pomeranz MK, Hazen A. Acne: a side-effect of masculinizing hormonal therapy in transgender patients. *Br J Dermatol*. 2019;180:26–30.
7. Hazarika N. Acne vulgaris: new evidence in pathogenesis and future modalities of treatment. *J Dermatolog Treat*. 2021;32:277–285.
8. Hermosura Almazan T, Kabigting FD. Dermatologic care of the transgender patient. *Dermatol Online J*. 2016;22:13030.
9. Kurtzman DJB, Alexander CE. Image gallery: dissecting cellulitis of the scalp following anabolic steroid use. *Br J Dermatol*. 2017;177:e160.
10. Melo DF, Lemes LR, Pirmez R, Duque-Estrada B. Trichoscopic stages of dissecting cellulitis: a potential complementary tool to clinical assessment. *An Bras Dermatol*. 2020;95:514–517.

J.L. Rodrigues Machado^a, M. Domingos Almeida^{ID b,*},
R.F. Cortez de Almeida^b, D. Fernandes Melo^b

^a Department of Dermatology, Faculdade IPEMED de Ciências Médicas (AFYA), Rio de Janeiro, Brazil

^b Department of Dermatology, Rio de Janeiro State University (UERJ), Rio de Janeiro, Brazil

* Corresponding author.

E-mail address: maitealmeida2022@gmail.com

(M. Domingos Almeida).