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CASE IMAGE

Trichodysplasia spinulosa post kidney transplant

Franco Cabeza Rivera[1] | **Veronica A. Ortigosa Serrano**[2] | **Adriana M. Medina**[3] | **Rojin Esmail**[3]

[1]Division of Nephrology and Hypertension, University of Miami Miller School of Medicine, Miami, Florida, USA

[2]The William J. Harrington Medical Training Programs For Latin America and the Caribbean and Global Observerships, International Medicine Institute, University of Miami Miller School of Medicine, Miami, Florida, USA

[3]Ross University School of Medicine, Bridgetown, Barbados

Correspondence
Franco Cabeza Rivera, Division of Nephrology and Hypertension, University of Miami Miller School of Medicine, Miami, FL, USA.
Email: fhc5@med.miami.edu

Key Clinical Message

Trichodysplasia spinulosa is a rare dermatological condition caused by a virus that predominantly affects immunosuppressed individuals. In this patient population, including organ transplant recipients, it is essential to maintain a high index of suspicion for possible infectious causes of persistent dermatologic conditions. Early diagnosis can facilitate treatment and help avoid disease progression and complications.

KEYWORDS

immunology, infectious diseases, nephrology, transplantation

A 37-year-old African American female, 7 months post deceased donor kidney transplant, presented with follicular papules on the face (Figure 1), arms (Figure 2), and upper back. An acneiform process was initially suspected. Despite treatment with topical azelaic acid and triamcinolone creams, her lesions progressed with extension to the lower extremities. A biopsy (Figure 3) of the preauricular cheek lesion revealed marked focal acute inflammation and necrosis around a hair follicle in the dermis, with deeper sections showing a keratotic plug within a dilated follicle, and the PAS stain was negative for fungal organisms. The findings were consistent with trichodysplasia spinulosa. This rare skin condition is linked to trichodysplasia spinulosa polyomavirus (TSPyV) and typically occurs in immunocompromised individuals. Viral replication within keratinocytes and hyperproliferation in the inner root sheath cell led to the development of keratin spines known as spicules.[1] These lesions can be pruritic. Areas commonly affected include the face, particularly the nose, ears, and eyebrows, as well as the arms and upper trunk. Trichodysplasia spinulosa is diagnosed based on clinical and histologic features, immunostaining, and TSPyV PCR testing. Histological findings include dilated hair follicles with keratin plugging, absent hair shafts, and eosinophilic trichohyalin deposits in the inner root sheath epithelium, accompanied by acanthosis and numerous apoptotic cells.[1,2] Treatment involves oral valganciclovir and topical cidofovir 3% to reduce viral replication. Topical retinoids and physical extraction of the spicules can be used to manage symptoms. Reducing immunosuppression may need to be considered in those whose disease persists despite adequate treatment. As our patient had a good clinical response to topical cidofovir 3% and tretinoin 0.025%, no change

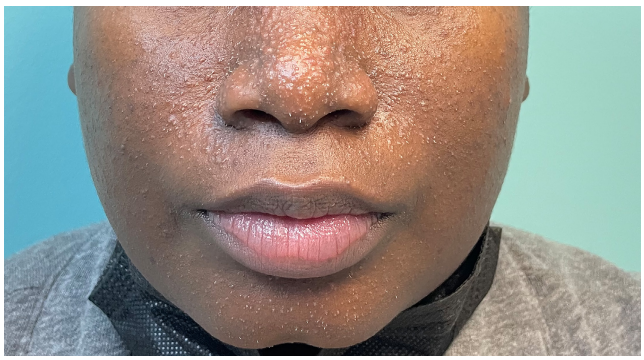

FIGURE 1 Facial follicular papules.

FIGURE 2 Forearm follicular papules.

in her immunosuppressive regimen was indicated. This highlights the importance of maintaining a balance between preserving allograft function and managing complications of immunosuppression, such as infections. The low index of suspicion for an infectious cause of this patient's symptoms allowed the disorder to advance initially. With the correct diagnosis and precise management, the condition entirely resolved. This case underscores the need to raise awareness among dermatologists, general practitioners, and the transplant community about the importance of considering viral etiologies, such as trichodysplasia spinulosa, in persistent dermatological conditions following transplantation.

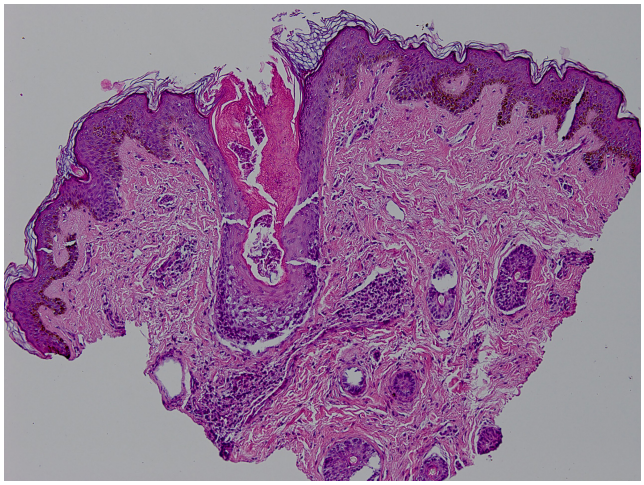

FIGURE 3 Photomicrograph of preauricular cheek lesion biopsy demonstrating a keratotic plug within a dilated follicle.

AUTHOR CONTRIBUTIONS

Franco Cabeza Rivera: Conceptualization; supervision; writing – original draft; writing – review and editing. **Veronica A. Ortigosa Serrano:** Project administration; writing – original draft; writing – review and editing. **Adriana M. Medina:** Writing – original draft; writing – review and editing. **Rojin Esmail:** Writing – original draft; writing – review and editing.

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DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

ORCID

Veronica A. Ortigosa Serrano https://orcid.org/0009-0009-4006-0714

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