

# UC Davis

## Dermatology Online Journal

### Title

Koebner phenomenon related to chest binding in a transgender man with psoriasis

### Permalink

<https://escholarship.org/uc/item/1f48k9rz>

### Journal

Dermatology Online Journal, 30(3)

### Authors

Aguinaga, Felipe

Ceccarelli, Miguel A

Lora-Barraza, Leonardo

### Publication Date

2024

### DOI

10.5070/D330363883

### Copyright Information

Copyright 2024 by the author(s). This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Peer reviewed

# Koebner phenomenon related to chest binding in a transgender man with psoriasis

Felipe Aguinaga MD, Miguel A Ceccarelli MD, Leonardo Lora-Barraza MD

Affiliations: Instituto de Dermatologia Prof Rubem David Azulay, Rio de Janeiro, Brazil

Corresponding Author: Felipe Aguinaga, Instituto de Dermatologia Prof Rubem David Azulay, R Santa Luzia, 206-Centro, Rio de Janeiro, RJ, 20020-022, Brazil, Tel: 55-21-991308128, Email: [felipeaguinaga@gmail.com](mailto:felipeaguinaga@gmail.com)

*Keywords: chest binding, Koebner, phenomenon, psoriasis, transgender, transmasculine*

To the Editor:

Chest binding is a common practice among transgender men and gender-diverse individuals, aimed at achieving a flatter chest contour and relieving gender dysphoria [1]. Various methods are employed, such as commercially available binders, sports bras, layered clothing, and elastic or bandage materials [2]. The use of binders has been associated with a range of skin issues, including acne, pruritus, and skin infections [3]. This report describes a transgender man with psoriasis, who presented a manifestation of the Koebner phenomenon attributed to binder usage.

An adolescent who identified as a transgender man presented with a history of psoriasis diagnosed at the age of nine. Despite undergoing multiple topical therapies, phototherapy, and systemic methotrexate, the patient reported gradual worsening of the disease. Clinical examination revealed the presence of erythematous, scaly plaques on his legs, trunk, and scalp. Upon obtaining the patient's agreement to remove the binder for a thorough skin assessment, several erythematous plaques were observed densely clustered in the region covered by the binder, indicative of the Koebner phenomenon (**Figure 1**). Lesions were mainly concentrated on the upper trunk, with fewer plaques noted on the lower trunk. The patient disclosed a consistent daily binder usage over the past two years, since the onset of puberty.

Recognizing the significance of chest binding in the patient's life and well-being and his desire to

maintain its use, we aimed to develop an effective therapeutic approach that didn't require ceasing binding practices. In conjunction with initiating ustekinumab treatment, we counseled the patient to limit the hours of binder usage, allowing intervals of time for the skin to remain free from compression. Additionally, we recommended opting for well-fitted binders made from breathable and comfortable fabrics. Treatment with ustekinumab resulted in significant improvement of all lesions.



**Figure 1.** Multiple guttate lesions on the upper back, concentrated in the binder-covered area, indicative of the Koebner phenomenon.

The Koebner phenomenon refers to the isomorphic development of lesions with the same clinical manifestations and histopathological characteristics as the primary lesions in areas in which the skin has been subjected to trauma, repeated friction, or pressure [4]. The incidence of the Koebner phenomenon in psoriasis varies, with some studies suggesting that 25% to 30% of patients develop new psoriatic lesions following skin trauma [4]. The Koebner phenomenon can be triggered by various factors, including both acute deep injuries like penetrating lesions, and chronic superficial damage, such as prolonged friction [4]. Lesions attributed to the Koebner phenomenon are frequently encountered in areas irritated by waistbands, belt buckles, and bra straps. To the best of our knowledge, this is the first report of the Koebner phenomenon related to chest binding.

Binding involves compression of the chest tissue to achieve a flatter contour for the purpose of reflecting one's gender identity [3]. Common methods include wearing sports bras, wrapping the chest with elastic bandages or tapes, and wearing commercially-produced binders specifically designed for chest binding, which are tight-fitting, and often made of nylon and spandex fabrics [2]. Chest binding is commonly adopted as a daily practice by transgender men and gender-diverse individuals [3].

Binding, especially with high frequency, has been linked to physical side effects, including back pain, shoulder pain, shortness of breath, and rib fractures [2]. Skin and soft tissue complications rank among the most frequently reported side effects. Various skin conditions have been observed, including acne, pruritus, skin infections, bruising, reduced elasticity,

and scarring [1-3,5]. In a study by Peitzmeier et al., 76.3% of transmasculine adults who practiced binding reported dermatologic issues. Itch was the more prevalent complaint, reported by 44.9%, followed by acne at 33.8% [2]. In a cross-sectional online survey conducted by Jarrett et al., of 1273 transmasculine adults who practiced binding, 77.7% reported skin and soft tissue symptoms [5]. The potential exacerbation of skin diseases that exhibit the Koebner phenomenon, such as psoriasis, lichen planus, and vitiligo, should be acknowledged as an additional potential complication of binder usage.

Managing skin conditions in transgender individuals can present unique challenges. Psoriasis care may require tailored approaches that consider the potential impact of gender-affirming practices like chest binding, which, as demonstrated in this case, can exacerbate psoriasis through the Koebner phenomenon. Despite being associated with some negative physical outcomes, chest binding offers significant mood improvement, reduced anxiety, and enhanced emotional health for some transgender men and gender-diverse individuals [3]. Healthcare providers should engage in open conversations with transgender patients to understand their specific habits, needs, and concerns, adapting care strategies accordingly. Awareness of the potential dermatological impacts of practices like chest binding is essential for clinicians to provide comprehensive care for transgender individuals.

## Potential conflicts of interest

The authors declare no conflicts of interest.

## References

1. Huang C, Gold S, Radi R, Amos S, Yeung H. Managing Dermatologic Effects of Gender-Affirming Therapy in Transgender Adolescents. *Adolesc Health Med Ther*. 2022;13:93-106. [PMID: 36237602].
2. Peitzmeier S, Gardner I, Weinand J, Corbet A, Acevedo K. Health impact of chest binding among transgender adults: a community-engaged, cross-sectional study. *Cult Health Sex*. 2017;19:64-75. [PMID: 27300085].
3. Peitzmeier SM, Silberholz J, Gardner IH, Weinand J, Acevedo K. Time to First Onset of Chest Binding-Related Symptoms in Transgender Youth. *Pediatrics*. 2021;147:e20200728. [PMID: 33542145].
4. Zhang X, Lei L, Jiang L, et al. Characteristics and pathogenesis of Koebner phenomenon. *Exp Dermatol*. 2023;32:310-323. [PMID: 36394984].
5. Jarrett BA, Corbet AL, Gardner IH, Weinand JD, Peitzmeier SM. Chest Binding and Care Seeking Among Transmasculine Adults: A Cross-Sectional Study. *Transgend Health*. 2018;3:170-178. [PMID: 30564633].