



## A Case of Hair Cast After Isotretinoin Treatment

Ecem Bostan<sup>1</sup>, Aysel Cakir<sup>2,3</sup>

1 Cihanbeyli State Hospital, Dermatology and Venereology Clinic, Konya, Turkey

2 Osmaniye Yedi Mart Hospital, Dermatology and Venereology Clinic, Ankara, Turkey

3 Osmaniye Yeni Hayat Hospital, Dermatology and Venereology Clinic, Ankara, Turkey

**Citation:** Bostan E, Cakir A. A Case of Hair Cast After Isotretinoin Treatment. *Dermatol Pract Concept*. 2023;13(3):e2023196.

DOI: <https://doi.org/10.5826/dpc.1303a196>

**Accepted:** February 24, 2023; **Published:** July 2023

**Copyright:** ©2023 Bostan et al. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (BY-NC-4.0), <https://creativecommons.org/licenses/by-nc/4.0/>, which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original authors and source are credited.

**Funding:** None.

**Competing interests:** None.

**Authorship:** All authors have contributed significantly to this publication.

**Corresponding author:** Ecem Bostan, Dermatology and Venereology Clinic, Cihanbeyli State Hospital, Atceken Avenue, Hastane Street, Cihanbeyli/Konya, 42850, Turkey. Telephone: +90 0332 673 40 93 E-mail: [bostanecem@gmail.com](mailto:bostanecem@gmail.com)

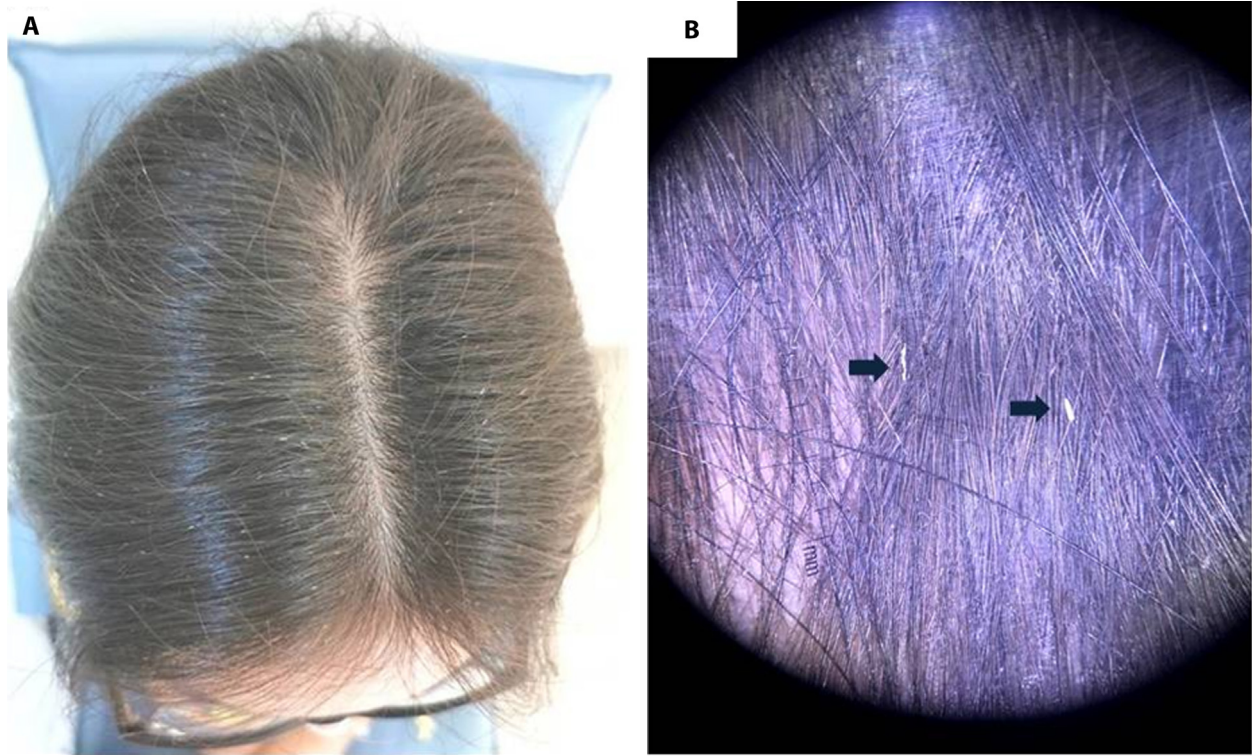
### Case Presentation

A 20-year-old female patient was referred to the dermatology outpatient clinic due to the emergence of multiple, white, easily removable, irregularly shaped and distributed concretions along the hair shaft (Figure 1). No accompanying inflammation or alopecia was detected. At the time of appointment, she was under oral isotretinoin treatment for acne vulgaris and the white concretions adherent to proximal hair shaft, had started to appear during the fourth month of the therapy. She was not using any other systemic or topical treatment. The differential diagnoses included peripilar keratin cast (PKC), white piedra, trichonodosis and pediculosis capitis. The patient did not report to have any other prior hair disease such as seborrheic dermatitis, psoriasis or folliculitis decalvans which may also be associated with hair casts. Potassium hydroxide examination was negative, since the white granules were easily removed from the hair shaft by gentle pulling, pediculosis capitis was also ruled out. She was diagnosed with PKC associated with isotretinoin use, topical betamethasone and salicylic acid

solution and ketoconazole 2% shampoo application resulted in complete regression. Informed consent was taken from the patient for the publication of case details and clinical pictures.

### Teaching Point

PKC also known as hair cast, is characterized by tiny, white to yellowish, easily removable granules which encircle the hair shaft [1]. Hair casts are usually composed of hyperkeratotic and parakeratotic cells derived from the outer root sheath [1]. The exact etiopathogenesis remains unclear but PKC may be seen in association with scalp disorders such as psoriasis, seborrheic dermatitis and traction alopecia [1]. Interestingly, Gutte [2] reported a case of scalp hair cast observed after oral cyclosporine treatment. Herein, we would like to underline that isotretinoin may also be a cause of PKC. We suppose that sebum and hydration reduction in the hair shaft due to isotretinoin use, might have led to the formation of PKC.



**Figure 1.** (A) Multiple, scattered, white, easily removable, oval to cylindrical concretions along the hair shaft. (B) Dermoscopic image of the hair cast along the hair shaft.

## References

1. França K, Villa RT, Silva IR, de Carvalho CA, Bedin V. Hair casts or pseudonits. *Int J Trichology*. 2011;3(2):121-122. DOI: 10.4103/0974-7753.90834. PMID: 22223977. PMCID: PMC3250010.
2. Gutte RM. Adult onset atopic dermatitis with secondary follicular mucinosis with cyclosporine induced spiny follicular hyperkeratosis and hair casts. *Indian J Dermatol*. 2013;58(3):243. DOI: 10.4103/0019-5154.110863. PMID: 23723501. PMCID: PMC3667313.