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Reply to early-onset effluvium secondary to COVID-19 and body hair effluvium



To the Editor: We agree with the points made by Miola et al¹ about the possibility of dystrophic anagen effluvium in cases assumed to be diagnosed with acute telogen effluvium, particularly in more severe hospitalized cases, when associated with early onset.

Additionally, our previous article showed a wide range of duration of shedding, from 12 to 100 days. Theoretically, a different duration of shedding could have an association with hair cycle phase shedding (anagen vs telogen) and the presence or absence of chronic inflammation.

To add to the list of differential diagnoses, for cases with later onset and a longer duration, clinically manifesting as alopecia (without expected regrowth of the hair shafts), alopecia areata has been reported after COVID-19 infection as a straightforward diagnosis of patchy areas of alopecia. ^{2,3} However, diffuse alopecia areata can be difficult to diagnose clinically and can be initially misdiagnosed as chronic telogen effluvium.

Dermatologists play a pivotal role in such patients' care by providing the correct diagnosis and therapy for hair involvement. For cases with alopecia areata, dermatology therapeutics have greatly expanded over the past years with the use of Janus Kinase inhibitors. Many of these have been tested for the treatment of hospitalized COVID-19 patients. Tofacitinib at 10 mg twice daily and

baricitinib at 4 mg daily for up to 14 days showed benefits in patients hospitalized for COVID-19 pneumonia, whereas ruxolitinib at 5 mg twice daily showed no benefit (NCT04362137).^{4,5} It is still unknown whether initiation of anti-inflammatory therapy, such as that using anti-interleukin 6, corticosteroids, Janus kinase inhibitors, or even anti-androgens, can have any effect on post-COVID-19 hair loss. As pointed out, some scalp biopsies showed no evidence of inflammation.¹ Thus, in the context of therapeutic initiation for COVID-19, therapy could have a benefit by halting respiratory involvement progression, improving oxygenation and physical stress, thus preserving the homeostasis of multiple organs, including the skin.

As Miola et al¹ pointed out, much is still unknown about postinfectious acute telogen effluvium, including areas with more involvement and the expected progression. One of the clinically striking and still rarely reported characteristics of effluvium was observed in our patients, namely, body hair effluvium. Fig 1, A depicts the first patient, seen by Dr Wambier, who complained of severe body hair effluvium after COVID-19 infection. Dr Tosti recently evaluated 25 patients with post-COVID-19 telogen effluvium and found 8 patients with body hair effluvium, which was often patchy (Fig 1, B) even if the scalp had no signs of patchy alopecia. We hope that more studies are conducted on the involvement of body hair in post-COVID-19 effluvium and telogen effluvium from other etiologies.

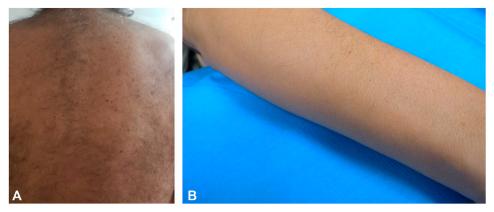


Fig 1. Body hair effluvium after COVID-19. **A**, A 74-year-old man with scalp acute telogen effluvium 2 months after COVID-19 presented with the progression of patchy alopecia from the scalp to the neck and upper portion of the back at 4 months. Later, his upper limbs, axillae, pubic area, buttocks, and lower limbs also became involved, whereas the beard, eyebrows, and eyelashes were spared. Spontaneous body hair regrowth was noticed at 8 months. **B**, A 56-year-old woman presented with severe telogen effluvium 45 days after COVID-19 pneumonia. An examination showed diffuse scalp thinning most pronounced on the temporal aspect of the scalp and patchy alopecia of the forearms.

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According to recent data, up to 20% of patients with COVID-19 have cutaneous manifestations. Dermatologists should be aware of the different types of hair loss that can be observed after COVID-19 infection.

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Conflicts of interest

None disclosed.

REFERENCES

- Miola AC, Florêncio LC, Ribeiro MEB, Alcântara GP, Ramos PM, Miot HA. Early onset effluvium secondary to COVID-19: clinical and histological characterization. *J Am Acad Dermatol.* 2022; 86(5):e207-e208. https://doi.org/10.1016/j.jaad.2021.09.072
- Rossi A, Magri F, Michelini S, et al. New onset of alopecia areata in a patient with SARS-CoV-2 infection: possible pathogenetic correlations? *J Cosmet Dermatol.* 2021;20(7): 2004-2005. https://doi.org/10.1111/jocd.14080
- Rostey R, Santana I, Almeida C. Alopecia Areata after COVID-19: causal or casual relationship? Surg Cosmet Dermatol. 2021;13:1-3. https://doi.org/10.5935/scd1984-8773.20211 30014
- Guimarães PO, Quirk D, Furtado RH, et al. Tofacitinib in patients hospitalized with Covid-19 pneumonia. N Engl J Med. 2021;385(5):406-415. https://doi.org/10.1056/NEJMoa210 1643
- Marconi VC, Ramanan AV, de Bono S, et al. Efficacy and safety of baricitinib for the treatment of hospitalised adults with COVID-19 (COV-BARRIER): a randomised, double-blind, parallel-group, placebo-controlled phase 3 trial. *Lancet Respir Med*. 2021;9(12):1407-1418. https://doi.org/10.1016/S2213-2600(21) 00331-3

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