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Tofacitinib-induced eosinophilia

Sara Archer^{1*}; Daniela Ferreira¹; Ana Teresa Ferreira¹; Sofia Ponte¹; Cidalina Caetano¹; Marta Salgado¹; Paula Lago¹; Isabel Pedroto¹

1 - Department of Gastroenterology, Centro Hospitalar Universitário de Santo António, Porto, Portugal.

*- Corresponding Author

Corresponding Author: Sara Archer

Full name: Sara Rita e Sousa de Oliveira Barreto Archer

Department: Department of Gastroenterology

Institute/University/Hospital: Centro Hospitalar Universitário de Santo António

Street Name & Number: Largo do Prof. Abel Salazar

City, State, Postal code, Country: 4099-001, Porto, Portugal

E-mail: u13418@chporto.min-saude.pt

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Dear Editor,

Tofacitinib is an oral small molecule JAK inhibitor approved for the treatment of moderate to severe ulcerative colitis (UC). Its efficacy and safety have been demonstrated in phase III clinical trials and supported by real-life data (1).

We report the case of an 18-year-old woman with a 1-year diagnosis of left-sided UC, with multiple admissions due to disease exacerbation or infections, refractory to infliximab (with azathioprine) and currently under treatment with vedolizumab and tacrolimus. She was admitted due to a severe disease exacerbation and, because of a previous history of neuropsychiatric side effects to corticotherapy, tofacitinib was initiated. In the following 6 days, there was no clinical improvement of UC, and serial blood work-up revealed moderate grade persistent peripheral eosinophilia (3000 cells/mm³) and acute kidney injury grade 1 KDIGO. Tofacitinib temporary suspension

was decided, with a rapid normalization of renal function/eosinophil levels. Tofacitinib was restarted 2 days after its suspension. However, she developed moderate eosinophilia (2000 cells/mm³) again, which was considered an adverse effect (AE) to tofacitinib, leading to its suspension with eosinophilia resolution. Given the severity of the disease, after a multidisciplinary discussion, it was decided to start high-dose corticotherapy and ustekinumab with maintenance therapy every 4 weeks, and to add tacrolimus. Clinical and biochemical remission were achieved, and the patient was discharged. Three-month follow-up after tofacitinib suspension showed no recrudescence of eosinophilia.

Tofacitinib represents a significant advance in the management of UC patients. The drug has a good safety profile with few related AE. This case aims to warn about an adverse reaction to tofacitinib not reported so far (2), including in a multicenter real-life setting recently published by Hernández et al where eosinophilia is also not described, thus emphasizing the rarity of this AE (3). To our knowledge this is the first case of tofacitinib-induced eosinophilia in the context of UC.

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