Mepolizumab for the treatment of eosinophilic cystitis: reply

Trefond L[1,2] Kahn JE[3]

[1]Service de Médecine Interne, CHU Gabriel Montpied, Clermont-Ferrand, France
[2]Université Clermont Auvergne, Inserm U1071, M2iSH, USC-INRA 1382, ClermontFerrand, France
[3]National Reference Center for Hypereosinophilic Syndromes, CEREO, France; Université Paris-Saclay, Assistance Publique - Hôpitaux de Paris, Department of Internal Medicine, Ambroise Paré Hospital, Boulogne-Billancourt, France

Corresponding author:
Ludovic Trefond
Université Clermont Auvergne, Inserm U1071, M2iSH, USC-INRA 1382
Service de Médecine Interne, CHU Gabriel Montpied Clermont Ferrand
63000 ClermontFerrand, France
E-mail: ltrefond@chu-clermontferrand.fr

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To the Editor,

We read with interest the publication by Wang and colleagues on the off-label use of Mepolizumab for the treatment of eosinophilic cystitis in a 77-year-old patient [1]. The authors presented another patient with idiopathic eosinophilic cystitis successfully treated with mepolizumab [1]. We appreciate the authors' contribution in reference to our publication on the first two cases of eosinophilic cystitis (EC) successfully treated with mepolizumab [2].

In Wang et al.'s reported case, there was notably a biological inflammatory syndrome initially, with a CRP of 40 mg/L and an ESR of 25 mm/h, while in the literature review of 135 patients with EC in 2000 [3], only 7% of patients had an elevated ESR. Our two patients [2] did not exhibit an inflammatory syndrome. We also lack details on the eosinophil infiltration rate in the biopsy in Wang et al.'s case. Our patients had counts of 200/HPF and 180/HPF, significantly higher than the cutoff of 15/HPF in eosinophilic esophagitis [4]. Another surprising aspect is the absence of imaging abnormalities in Wang et al.'s patient [1], whereas in our cases, imaging helped for diagnosis and provided clear evidence of improvement under treatment.

Despite these considerations, this case appears compelling and aligns with an organ-restricted presentation without HE, similar to our case 1 [2].

In Table 1, we have summarized the key elements from these three cases [1,2].

Despite the limited follow-up in Wang et al.'s case [1], there have been no reported relapse. This supports the notion, as we previously suggested, that mepolizumab may hold promise in the off-label treatment of idiopathic eosinophilic cystitis.

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Conflicts of Interest

J.-E. Kahn reports consulting fees for advisory boards from AstraZeneca and GSK, research funding from AstraZeneca and GSK, and participation in clinical trials sponsored by AstraZeneca. The remaining authors declare no conflict of interest.

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Table 1. Characteristics of three cases of eosinophilic cystitis successfully treated by off-label use of Mepolizumab.

	Case 1 *	**Case 2 ***	**Case 3 ****
Country	France	France	China
Age (years)	69	15	77
Symptoms	Hematuria, dysuria, urinary frequency	Abdominal pain, pollakiuria, dysuria	Difficulty in urination, frequent urination
Eosinophilia (x10^9 /L)	660	3000	850
IgE	1500kU/L	1800 kU/L	175UI/mL
CRP (mg/L)	<5	<5	40
Eosinophiluria	90 eo/100 cells		
Biopsy	200/HPF	180/HPF	Eosinophilic infiltration
Treatment before Mepolizumab	Prednisone	Prednisone	Methylprednisolone and Tripterygium wilfordii
Other organ	-	Eosinophilic gastroenteritis	-
Type of HES ***	Organ-restricted without HE	Multi-organ involvement with severe HE	Organ-restricted without HE
Relapse	-	-	-
Follow up	1 year	15 years	6 months

CRP, C-reactiv protein, HE hypereosinophilia, HES hypereosinophilic syndrome

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