Response to: 'Biologic agents for giant cell arteritis: treat to target' by Moiseev *et al*

We thank Moiseev *et al* for their interest in our study of ustekinumab in giant cell arteritis (GCA).[1 2] Our pilot study reported promising initial results from the use of ustekinumab in GCA.[1]

GCA is a potentially devastating disease with cranial ischaemic complications such as blindness and stroke occurring in 20%–25% of patients.[3] While corticosteroids are effective in reducing the risk of cranial ischaemic complications, they do not fully extinguish the vascular inflammation in patients with GCA[4–6] with consequent risk of disease relapse and longer-term consequences such as aortic aneurysms.[7 8] Furthermore, corticosteroids are associated with significant complications in 95% of patients, including fractures, sepsis and type 2 diabetes mellitus.[9] These are not benign adverse events that should be considered an acceptable trade-off for the observed partial clinical efficacy of corticosteroids. Fractures, for example, carry a 20% excess mortality after 5 years, with hip fractures having a 20% mortality after 1 year.[10] Biologic agents, like any other treatment, have potential adverse events. However, the weight of evidence suggests that they are safer than long-term corticosteroids.[11–13]

We agree that there is a fundamental imperative for treat to target strategies in GCA. But what is the target? Currently, as there is no validated disease activity measure for GCA, patient evaluation relies on clinician assessment and acute phase reactants, which incompletely capture disease activity and progression. Large vessel imaging studies are helpful in some situations, but all have limitations and none are proven to reliably reflect disease activity upon serial imaging, particularly in patients who have been established on corticosteroid therapy. The development of a validated disease activity measure for GCA is urgently needed.

We agree with Moiseev *et al* that some patients with GCA may be overtreated. However, the converse is also true—many patients with GCA are undertreated, contributing to long-term disease-related complications such as thoracic aortic aneurysms, not least because of the lack of effective therapies. Key goals of new therapies in GCA should include more effective inhibition of vascular, not just systemic, inflammation and decreasing drug-related adverse events through a reduction in corticosteroid use.

We have reported our encouraging preliminary experience with ustekinumab in patients with refractory GCA.[1] However, ustekinumab requires further evaluation in randomised controlled trials and ultimately may or may not emerge as an appropriate treatment for GCA. What is clearly evident, however, is that steroid monotherapy is a suboptimal treatment strategy for many patients with GCA and ongoing efforts are required to identify safe and effective alternative therapies.

Richard Conway,[1,2] Eamonn S Molloy[1]

[1]Centre for Arthritis and Rheumatic Diseases, St Vincent's University Hospital, Dublin Academic Medical Centre, Elm Park, Dublin 4, Ireland
[2]CARD Newman Research Fellow, University College Dublin, Belfield, Dublin 4, Ireland

Correspondence to Dr Richard Conway, Centre for Arthritis and Rheumatic Diseases, St Vincent's University Hospital, Dublin Academic Medical Centre, Elm Park, Dublin 4, Ireland; drrichardconway@gmail.com

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