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Mepolizumab therapy in Eosinophilic Granulomatosis with polyangiitis (EGPA) - A one-year follow-up study using anti-IL5 as a steroid sparing therapeutic approach.

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Background and Aims:

EGPA is a small vessel vasculitis characterised by the presence of tissue eosinophilia, necrotising vasculitis and granulomatous inflammation1. Typically, a prodromal asthmatic phase, leads to an eosinophilic stage, which can evolve to include the presence of vasculitis with renal manifestations. In the recent randomised, placebo-controlled MIRRA trial for relapsing and refractory EGPA, adjuvant therapy with anti-IL5 mAB Mepolizumab [MEPO] at 300mg s/c monthly, accrued longer times in remission, reduced steroid exposure and reduced relapse rates2. The aim of our study was to analyse the response and outcome for EGPA patients who received 100mg s/c of MEPO monthly for a minimum of 52 weeks, with particular focus on the steroid minimisation benefits.

Method:

This retrospective, descriptive study analysed 13 patients with EGPA, who received 100mg s/m monthly MEPO therapy under the eosinophilic asthma care-pathway. Time points of assessment included MEPO commencement [M0] and 12 [M12] months.

Results

One patient had MEPO switched to Rituximab to treat both EGPA and new onset rheumatoid arthritis. continued on concurrent conventional immunotherapies.

Conclusion:

The relapsing nature of EGPA places a potential dependency of therapy on steroids for asthmatic and vasculitic flares. This underscores the importance of targeted pathway specific biologic therapy to minimise steroid exposure, prevent tissue damage and ensure early response to therapy. This study demonstrates that anti-IL5 serves as a favourable model with steroid minimisation, improvement in asthma control questionnaire, reduction in BVAS and eosinophil counts at the 100mg s/c dosage. ANCA positive serology normalised in all four patients, independent of subtype. Well tolerated, it demonstrated considerable clinical benefit, with 12 patients [92.3%] continuing anti-IL5 therapy beyond 12 months. Adjuvant therapy with conventional immunosuppressants was well tolerated and renal function was preserved.

1. J.C.Jenette, et al Revised International Chapel Hil Consensus Conference Nomenclature of Vasculitides. 65, 1–11 (2013).
2. Wechsler, M. E. et al. Mepolizumab or Placebo for Eosinophilic Granulomatosis with Polyangiitis. N. Engl. J. Med. 376, 1921–1932 (2017).

Figure: