administered by subcutaneous injections. Patient reported outcomes were assessed by the Birmingham Vasculitis Activity Score (BVAS) and the the Asthma Control Questionnaire (ACQ). OCS dose, lung function, blood eosinophil count and exacerbation rate were recorded at baseline, 24 weeks and 48 weeks of treatment.

Results Eleven patients (6 female) with a mean age of 50±14 years completed 24 weeks of treatment; nine completed 48 weeks. A significant improvement in BVAS from baseline 7.91 (±3.27) to 3.45 (±2.52) at 24 weeks (p=0.0001) and 3.44 (±2.88) at 48 weeks (p=0.0007) was recorded. The ACQ changed from baseline 2.13 (±0.98) to 1.73 (±1.57) at 24 weeks (p = 0.47) and 1.03 (±0.71) at 48 weeks (p=0.012). After 24 weeks, there was a median reduction in OCS of 50%; 8/11 (73%) patients were able to reduce their dose by [3] 50%. After 48 weeks, the median reduction in mOCS was 65% and 8 (89%) were able to reduce their dose by ≥ 50%. The median prednisolone dose was reduced from 15 (IQR 10–20) mg to 5 (IQR 5–10) mg at 24 weeks and 5 (IQR 1–6.5) mg at 48 weeks (p = 0.0018) (figure 1).

No significant changes were observed in lung function. Eosinophil counts were totally depleted. No increase in exacerbations was seen. Benralizumab was well tolerated and no adverse effects were recorded.

Conclusion We report significant reductions in mOCS requirements and improved measures of disease control following benralizumab therapy in patients with EGPA. Further research exploring the mechanism(s) of residual disease in eosinopaenic patients is needed and will compliment upcoming prospective controlled trials of this therapy in EGPA.

P99 THE VALUE OF ORAL PREDNISOLONE IN PATIENTS WITH SEVERE EOSINOPHILIC ASTHMA ON MEPOLIZUMAB TREATMENT

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Background Mepolizumab and prednisolone have overlapping anti-inflammatory effects so the clinical effects of prednisolone might be attenuated in severe eosinophilic asthma (SEA) patients treated with mepolizumab.

Methods We tested this hypothesis in a randomized, double-blinded, placebo-controlled, crossover trial of prednisolone (0.5 mg/kg/day, 2 weeks) after ≥12 weeks of mepolizumab. Symptoms and quality of life (QoL) questionnaire scores, lung function including oscillometry and markers of inflammation were measured before and after prednisolone and placebo.

Results There were no significant changes in asthma symptoms and QoL questionnaire scores following prednisolone treatment. In comparison to placebo, prednisolone improved FEV_1 by 100 ml (p=0.019) and FEF_{25-75} by 200 ml/s (p=0.006). Median FeNO at baseline was 37ppb. Prednisolone reduced FeNO by 13.0ppb (p=0.001), blood eosinophil count by 0.02 × 10^9/L (p=0.003) and sputum eosinophil percentage of total cell count by 1.4% (p=0.002) in comparison to placebo. Post-prednisolone and post-placebo SNOT-20 questionnaire scores indicated there were no improvements in nasal symptoms following prednisolone in patients on mepolizumab.

Abstract P99 Table 1 Prednisolone vs placebo response in patients with severe eosinophilic asthma treated with ≥12 weeks of mepolizumab (n=26)

	Median Δ with pred (95% CI)	Median Δ with placebo (95% CI)	Median difference in Δ (95% CI)	p
ACQ-5 score	0.0 (-0.6, 0.4)	0.0 (-0.2, 0.4)	0.0 (-0.2, 0.2)	0.437
Mini-AQLQ score	0.0 (-0.1, 0.3)	0.0 (-0.2, 0.2)	0.0 (-0.1, 0.2)	0.929
SGRQ score	-0.7 (-4.2, 2.7)	0.3 (-3.3, 6.2)	0.4 (-0.7, 2.3)	0.611
VAS overall symptoms	0.0 (-0.8, 0.1)	-0.1 (-0.8, 0.0)	0.0 (-0.3, 0.4)	0.896
SNOT-20 total	13.5 (2.0, 34.0)*	10.0 (3.0, 32.0)*	0.0 (-1.0, 3.0)	0.882
Oscillometry				
R5-20 (cmH2O.s/L)	0.2 (-0.2, 0.4)	0.1 (-0.2, 0.4)	0.1 (-0.2, 0.2)	0.686
AX (cmH2O/L)	**2.6 (0.6, 6.9)**	0.9 (-2.2, 2.5)	1.0 (-0.4, 4.9)	0.150
X5 (cmH2O.s/L)	-0.2 (-0.8, 0.2)	0.1 (-0.2, 0.4)	0.0 (-0.3, 0.2)	0.518
FeNO (ppb)	**-13.0 (-31.0, -1.0)**	-2.0 (-13.0, 13.0)	**-13.0 (-20.5, -4.0)**	**0.001**
Spirometry				
FEV_1 (L)	0.1 (-0.1, 0.1)	-0.0 (-0.2, 0.1)	**0.1 (0.0, 0.2)**	**0.019**
FEF_{25-75} (L/s)	**0.2 (0.0, 0.5)**	-0.1 (-0.2, 0.1)	**0.2 (0.1, 0.5)**	**0.006**
Blood cell count				
Neutrophils (x10^9/L)	**4.0 (2.9, 5.3)**	0.2 (-0.5, 1.0)	**3.5 (2.9, 5.0)**	**<0.001**
Eosinophils (x10^9/L)	**-0.02 (-0.07, 0.00)**	0.01 (-0.01, 0.02)	**-0.02 (-0.05, -0.01)**	**<0.001**
Sputum cell count				
Neutrophils% of total (%)	5.4 (-8.4, 28.5)	-1.1 (-14.4, 17.5)	-1.8 (-8.2, 2.5)	0.433
Eosinophils% of total (%)	**-2.0 (-8.0, 0.0)**	**1.2 (0.0, 2.5)**	**-1.4 (-4.0, -0.5)**	**0.002**

Results are shown as median (IQR). Statistically significant changes are highlighted in **bold**.
*SNOT-20 was measured post-prednisolone and post-placebo only.
Acronyms: ACQ, Asthma Control Questionnaire; AQLQ, Asthma Qualify of Life Questionnaire; SGRQ, St George's Respiratory Questionnaire; VAS, visual analogue scale; SNOT, Sino-Nasal Outcome Test; FeNO, fractionated exhaled nitric oxide.

Conclusion In patients with severe eosinophilic asthma treated with mepolizumab, prednisolone has no significant effects on symptoms or quality of life but improves FEV_1 and small airway function and reduces FeNO.

P100 REAL WORD EFFECTIVENESS OF ANTI IL-5/IL-5R THERAPIES IN SEVERE ASTHMA WITH FUNGAL SENSITISATION

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Introduction Severe asthma with fungal sensitisation (SAFS) is a complex clinical phenotype associated with poorly-controlled T2 inflammation and significant morbidity from both the disease itself and a high steroid burden. There are limited data