Methods: We retrospectively evaluated clinical and laboratory data of patients affected by GPA, MPA and CV, according to specific classification criteria, and treated with RTX based on expert rheumatologist indication between 2018, date of biosimilars availability, and 2022. Specifically, C-Reactive Protein (CRP), Erythrocyte Sedimentation Rate (ESR), gamma globulins, C3, C4, Five Factor Score (FFS), Birmingham Vasculitis Activity Score version 3 (BVASv3) and concomitant rheumatologic therapy were recorded. Autoimmunity was assessed as anti-neutrophil cytoplasmic antibody (ANCA) positivity for GPA and MPA and as presence of cryoglobulins in CV. All patients were followed-up for at least 12 months and received at least two cycles of therapy with RTX-Or, CT-P10 or GP2013. NMS to RTX biosimilars was performed when clinically feasible and accepted by the patient. Any safety issue associated with RTX treatment was recorded. Clinical and laboratory data were analyzed using appropriate statistical tests with SPSS.
Results: Data on 29 patients (female No. 19 - 65,5%; mean age 56.3±15.7 years old; mean disease duration 52.3±20.1 months) were available. Ten patients started therapy with RTX-Or, and all accepted NMS to CT-P10. Nine patients were treated with CT-P10 and six accepted NMS to GP2013. Twelve patients started treatment with GP2013. At baseline and during follow-up no significant differences among laboratory and clinical data of patients treated with any RTX molecule was highlighted. All patients achieved a statistically significant reduction of mean corticosteroid dose used from 20.4±12.8 mg/day of prednisone equivalents at baseline to 5.0±2.8 mg/day at 12 months (p=0.00016), and of mean BVASv3 from 20.0±4.5 at baseline to 4.7±2.3 after 12 months (p<0.00001). On average, a reduction of CRP and ESR levels, despite a small decrement of gamma globulins level was also observed. Mean C3 and C4 level resulted normal over time. ANCA positive patients decreased from 83.3% at baseline to 35.3% after one year (p=0.0059). Cryoglobulins were still detectable in 36.4% of patients after one year of RTX treatment (p=0.0039). No severe AEs were recorded, and only two CV patients treated with CT-P10 presented mild AEs: moderate lymphopenia, resolved after temporary drug withdrawal in one subject, and mild urticaria after infusion, with no new AEs after CT-P10 retreatment in the other. Of note, no AEs were observed in our cohort after NMS.
Conclusion: Our study demonstrated comparable effectiveness and safety of RTX-Or and its two biosimilars both for induction and maintenance of remission. The effectiveness and safety of NMS for RTX in SVV is confirmed, and our results grant first time evidence for safety and maintained effectiveness of treatment in such patients also after NMS between biosimilars. This practice allows economic sustainability for healthcare systems and represents a hot topic in clinical practice.

REFERENCES:

[1] Antonelou M et al. *Scand. J. Rheumatol*. (2022)
[2] Vacchi C et al. *Intern Emerg Med*. (2021)
[3] Mittal S et al. *Clin Rheumatol*. (2021)

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AB0776 REAL-WORLD EVIDENCE ON THE LONG-TERM USE AND DRUG SURVIVAL OF MEPOLIZUMAB IN EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS (EGPA)

Keywords: Vasculitis, Descriptive Studies, Real-world evidence

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Background: Eosinophilic granulomatosis with polyangiitis (EGPA) is a rare form of ANCA-associated vasculitis in which it is frequently difficult to achieve glucocorticoid (GC) tapering without relapse. Mepolizumab (MEPO) is an approved anti-IL5 agent for EGPA but real-world evidence of its long-term efficacy and survival is scarce.
Objectives: To study the efficacy, safety, and survival of MEPO for EGPA in daily clinical practice.
Methods: Retrospective study of all patients with EGPA who received MEPO in two academic Rheumatology centers up until January 10, 2023. Demographic and clinical data were recorded at baseline (start of MEPO) and at last follow up visit.
Results: 16 patients with EGPA treated with MEPO (females: 87.5%, mean age: 52.4 years, mean disease duration at MEPO start: 4.4 years, ANCA+: 25%) were included in the study. At baseline, the median (IQR) BVASv3 was 6 (7) and the history of EGPA systemic involvement was: lung 94%, ENT 94%, musculoskeletal 50%, heart 50%, peripheral nervous system 37.5%, skin 25% and gastrointestinal 25%. The median number of EGPA relapses before MEPO use was 2, while 11/16 (69%) had previously failed various immunosuppressive (IS) (MTX, AZA, MMF, CYC) and 3/16 (18%) omalizumab treatment. At MEPO start, all patients were on GCs (median prednisolone dose: 12.5 mg/day), while 62.5% were on IS (MMF=6, MTX=2, RTX=2). During follow-up [median (IQR)=12 (19) months], there was a statistically significant reduction in GC dose (median, from 12.5 to 2.5mg/day, p=0.002, while 3/16 (19%) patients discontinued GCs), absolute eosinophil count (mean, from 1603±1163 to 84±42, p<0.001) and BVASv3 (median, from 6 to 0, p=0.007). The cumulative drug survival at 6, 12 and 18 months was 100%, 100% and 83% respectively (Figure 1). MEPO was discontinued in 2 patients due to relapsing disease, while it was well tolerated in all patients without withdrawals for safety issues. Of note, in 3 subjects (19%) MEPO was used concurrently with rituximab (RTX) with good tolerability.
Conclusion: In this real-world study of EGPA patients, MEPO was efficacious and safe, with a high retention rate and significant GC-sparing effects. Furthermore, in almost one out of five patients it was used successfully in combination with RTX. These findings confirm the RCT data in real-life, difficult to treat patients.

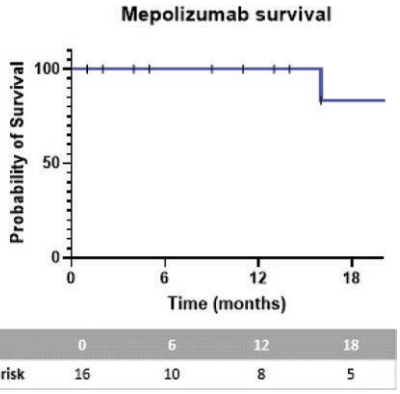


Figure 1. Mepolizumab survival (Kaplan-Meier analysis) in real-life EGPA patients

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AB0777 PERFORMANCE OF 2022 ACR/EULAR GPA, EGPA AND MPA CLASSIFICATION CRITERIA IN TURKISH VASCULITIS STUDY GROUP PROSPECTIVE COHORT (TRVAS)

Keywords: Validation, Vasculitis, Registries

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Background: External validation of the 2022 ACR/EULAR GPA, EGPA and MPA Classification Criteria is recommended by the DCVAS study group [1-3].
Objectives: Turkish Vasculitis Study (TRVaS) prospective cohort is an electronic database including 15 centres from all over Turkey. We aimed to test performance of the recent criteria sets in TRVaS cohort.
Methods: Patients diagnosed according to physicians' decisions have been recruited prospectively in TRVaS (in total 3730 patients by January 2023). 2022 ACR/EULAR and 1990 ACR Classification Criteria sets were applied to all of the patients with AAV [GPA (n=533), EGPA (n=112), MPA (n=105), and unclassified AAV (n=70)], poliarteritis nodosa (PAN, n=47) and IgA Vasculitis (n=76). Performances were analysed using sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and accuracy.
Results: For the patients with GPA, 2022 criteria had higher sensitivity and specifity compared to 1990's (83.6% vs. 71.0% and 95.6% vs. 88.6%, respectively in Table). A significant increase was observed in sensitivity for 2022 criteria for patients with EGPA (86.4% vs.59.1%) with no change in specificity. Sensitivity and specificity of 2022 MPA criteria was calculated as 83.8% and 89.8%, respectively. Using the 2022 criteria to the patients with unclassified AAV, led to classify seven (10.0%) patients as GPA and 29 (41.0%) patients as MPA. Of 47 patients with PAN, one patient fulfilled 1990 ACR and another fulfilled 2022 GPA criteria. Others were not classified as EGPA or MPA. None of the patients with IgA vasculitis fulfilled 2022 AAV criteria. Of 533 patients with GPA, 1.5% fulfilled both 2022 GPA and MPA criteria and 7.7% fulfilled only MPA criteria (Figure). In each clinically diagnosed AAVs, around 10% of patients were not classified by any 2022 criteria.
Conclusion: Using 2022 ACR/EULAR Classification Criteria, improved sensitivity and specifity for GPA and sensitivity for EGPA were observed. Additionally, half of the unclassified AAV patients could be classified as either GPA or MPA. These criteria functioned well for the discrimination of patients with AAV from other small/medium vessel vasculitides such as PAN and IgA vasculitis. In total, over 80% of the patients with AAV were accordingly classified in paralel to the clinical diagnosis in each GPA/EGPA/MPA.
REFERENCES:
[1] Robson, J.C.et al s. *Ann Rheum Dis* 2022, *81*, 315-320.
[2] Grayson, P.C. et al. *Ann Rheum Dis* 2022, *81*, 309-314.
[3] Suppiah, R. *Ann Rheum Dis* 2022, *81*, 321-326.

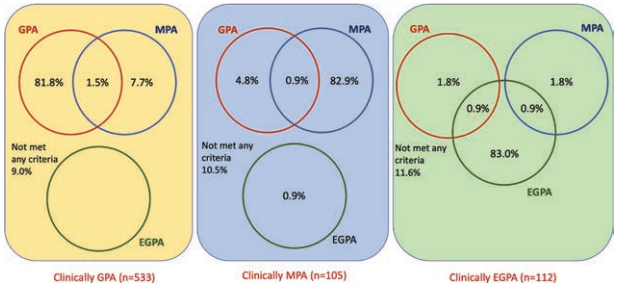


Figure. Classification of clinically diagnosed GPA/EGPA/MPA patients using 2022 ACR/EULAR criteria sets

Table. Performance of 1990 ACR and 2022 ACR/EULAR criteria

		GPA	Non-GPA AAV	EGPA	Non-EGPA AAV	MPA	Non-MPA AAV	PAN + IgAV
1990 ACR Wegener criteria	Sn/Sp	71/88.6	71/84	-	-	-	-	71/99.2
	PPV/NPV	89.3/69.6	89.6/60	-	-	-	-	99.7/44
	Accuracy	78.6	75.4	-	-	-	-	76.3
2022 ACR/ EULAR GPA	Sn/Sp	83.6/95.6	83.6/94.1	-	-	-	-	83.6/99.2
	PPV/NPV	96.3/81.2	96.5/74.5	-	-	-	-	99.8/58.2
	Accuracy	88.7	87.1	-	-	-	-	86.5
1990 Churg-Strauss criteria	Sn/Sp	-	-	59.1/100	59.1/100	-	-	59.1/100
	PPV/NPV	-	-	100/94.6	100/93.7	-	-	100/73.1
	Accuracy	-	-	95	94.2	-	-	80.6
2022 ACR/ EULAR EGPA	Sn/Sp	-	-	86.4/99.8	86.4/99.8	-	-	86.4/100
	PPV/NPV	-	-	98.9/98.1	98.9/97.81	-	-	100/89.1
	Accuracy	-	-	98.2	97.9	-	-	93.5
2022 ACR/ EULAR MPA	Sn/Sp	-	-	-	-	83.8/89.8	83.8/87.9	83.8/100
	PPV/NPV	-	-	-	-	52.1/97.7	52.1/97.2	100/87.8
	Accuracy	-	-	-	-	89.1	87.4	92.5

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Disclosure of Interests: None Declared.
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AB0778

HISTOPATHOLOGIC FEATURES AND CLINICAL OUTCOMES IN PATIENTS WITH EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS

Keywords: Vasculitis, Clinical Trials

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Background: The main histological features of eosinophilic granulomatosis with polyangiitis (EGPA) are tissue eosinophilia (TE), small-vessel vasculitis (SVV), and extravascular granuloma. However, the relationship between these pathological findings and treatment response is not known.
Objectives: To explore the associations between pathological features of TE or SVV and the clinical parameters and treatment response in EGPA patients.
Methods: This is a single-center, retrospective, cohort study. Subjects who met the following were included for analysis: 1) those who fulfilled the 1990 ACR criteria and/or the 2012 revised CHCC criteria and/or the ACR/EULAR 2022 criteria, 2) those who were treated for at least 2 years in our hospital since 1/1/2010, 3) those who had undergone tissue biopsy at any site during their initial diagnostic workup. All available slides of biopsies were reviewed by a blinded pathologist expertise with vasculitis. Based on the EULAR recommendations, remission was defined as the absence of vasculitis activity (BVAS=0) with daily doses of prednisolone <=7.5mg after 2 years of treatment and refractory disease was defined as failure to attain remission.
Results: Among 37 patients diagnosed with EGPA, 30 patients were included. Total 84 biopsies (muscle 36, skin 15, nose 9, colon 8, stomach/duodenum 4, nerve 4, kidney 3, lung 2, heart 1, small intestine 1, and temporal artery 1) were reviewed. SVV, TE, and extravascular granuloma were found in 17 (56.5 %) patients, 16 (53.3 %) patients and 3 (10 %) patients, respectively. (Fig.1) SVV was associated with refractory disease (47.1 % vs 0 %, p=0.04). TE was associated with skin lesions (56.2 % vs 14.3%, p = 0.021) and inversely associated with severe peripheral neuropathy (43.8 % vs 85.8 %, p = 0.021). (Table.1) ANCA was present in 11 (36.7 %) patients. ANCA was not associated with refractory diseases (ANCA positive 36.3% vs ANCA negative 21.1%, p=0.31)
Conclusion: In EGPA, pathological evidence of SVV may be better predict poor treatment response than ANCA positivity.

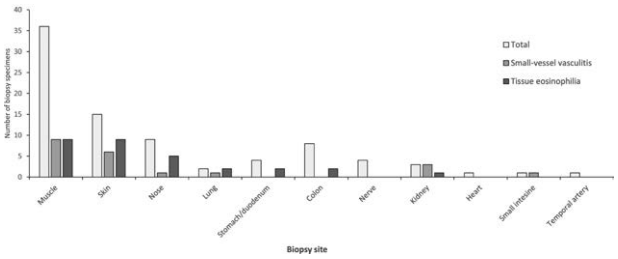


Fig.1 Biopsy sites and each number of positive pathological finding.

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