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Background: Granulomatosis with polyangiitis (GPA) and microscopic polyangiitis (MPA) require glucocorticoids (GCs) and immunosuppressants (IS) to induce and maintain remission. At the era of highly active drugs and treat-to-target strategies, defining the goal to achieve in terms of remission could be beneficial for the long-term management.

Objectives: To assess the impact of prolonged remission or low disease activity state (LDAS) in GPA and MPA patients and its relationship with damage accrual.

Methods: Patients diagnosed with GPA and MPA, according to ACR criteria and/or Chapel Hill definitions, seen in two vasculitis centers and followed-up for ≥ 5 years were included. Disease activity was assessed by BVAS, and damage accrual by the VDI. Three levels of remission were defined: complete remission (CR): BVAS=0 and negative ANCA in GCs-free and IS-free patients; clinical remission off therapy: no disease activity and positive ANCA in GCs-free and IS-free patients; clinical remission on therapy: no disease activity in patients with low dose GCs (≤ 5 mg/d) and/or IS. LDAS was defined as 0<BVAS ≤ 3 without major organ activity, no new disease activity, low-dose GCs (≤ 7.5 mg/day) and well-tolerated IS. We defined remission or LDAS as prolonged when lasting ≥ 2 consecutive years. The effect of prolonged remission and LDAS on damage accrual was evaluated.

Results: 167 patients were included: 128 (76.6%) GPA, mean age 51.0 $\pm$ 16.7 years. At 5-years, mean VDI was 2.7 $\pm$ 2.0, mainly because of AAV-related items (2.0 $\pm$ 1.7) rather than treatment-related items (0.7 $\pm$ 1.0). During the 5-year follow-up, 10 (6.0%) patients achieved prolonged CR, 6 (3.6%) prolonged clinical remission off therapy, 89 (53.3%) prolonged clinical remission on therapy, 42 (25.1%) prolonged LDAS and 20 (12.0%) never achieved LDAS. Damage accrual at 5-years in patients with prolonged CR, clinical remission off therapy, clinical remission on therapy, LDAS or those never achieved LDAS was 1.6 $\pm$ 1.1, 1.8 $\pm$ 1.7, 2.3 $\pm$ 1.9, 3.8 $\pm$ 2.0 and 3.3 $\pm$ 2.0, respectively ($P<0.0001$). Damage was comparable between patients in prolonged remission off therapy and those in remission on therapy ($P=0.3$). In contrast, patients in prolonged LDAS or those never in LDAS had significantly more damage accrual ($P<0.0001$ and $P=0.01$, respectively) than those in prolonged remission off therapy. Eighty-one patients (49%) reached a VDI ≥ 3 at 5-years. The inability to achieve prolonged remission was associated with a VDI ≥ 3 at 5-years (OR 5.07, 95% CI 2.53-9.84, $P<0.0001$), and considering only prolonged CR or clinical remission off therapy did not had any benefit on damage accrual. In contrast, achieving prolonged LDAS had no benefit compared to spending no time in LDAS ($P>0.99$). Compared to patients achieving prolonged remission, those not able to achieve prolonged remission were younger (46 $\pm$ 16.0 vs. 53.5 $\pm$ 16.6, $P=0.001$), had more frequent GPA ($P=0.0003$), had more PR3-ANCA ($P=0.006$), had more ENT and lung involvement ($P<0.0001$ and $P=0.036$, respectively).

Conclusion: Sixty percent of GPA and MPA patients achieved prolonged remission, which was associated with a better outcome in terms of damage accrual. In contrast, prolonged LDAS was associated with increased damage and was not a sufficient target to achieve in GPA and MPA.

Disclosure of Interests: : None declared

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AB0468 AGE RELATED DIFFERENCES IN PATIENTS WITH GIANT CELL ARTERITIS

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Background: Few data are available on the epidemiology and management of giant cell arteritis (GCA) in patients over 75 years despite the progressive aging in our societies. In other diseases this subgroup of patients presents important differences in the management and prognosis of their pathologies.

Objectives: To explore this situation by comparing two subgroups of patients, older and younger than 75, assessing possible changes in demographic characteristics, diagnostic tests, treatment and outcome.

Methods: We perform a retrospective review of charts, laboratory data, image studies, treatment and outcome of biopsy-proven GCA in our institution (Complejo Hospitalario Universitario de Vigo) between 1 January 2000 and 30 November 2019.

Results: During study period 124 patients were analysed, 51 in the subgroup of <75 (mean age 64.6 (56-75)) and 73 in the subgroup of >75 (mean age 81.8 (76-89)). There were no differences about sex (female 76.6% vs. 65%) or in the Charlson index between the two groups (0-1 in 72% of patients). Older patients present more frequently with headache (49.2 % vs 32.3%), polymyalgia rheumatica (53.4 % vs 45.1%), weight loss (48% vs 39.2%) and ischaemic manifestations (72.6 % vs 51%), including visual disturbances (26% vs 11.8%). Younger patients present more frequently with fever (33.3% vs 19.2%). Median ESR was similar: 98 vs 96mm/h; median CPR was slightly higher in younger patients 94.5mg/dL vs 71.59mg/dL.

PET-TC was performed more frequently at diagnosis in the subgroup of younger patients (29.4% vs 12.3%) and during follow-up period in the other subgroup (3.4% vs 7%) with evidence of involvement of large vessels in 14 of them. Initial treatment consisted of corticosteroids in 100% of patients with the most frequent doses, in both groups, between 40-60mg/day of prednisone or equivalent. The subgroup of < 75 were treated more aggressively receiving pulses of methylprednisolone (125-250mg) 12 patients (23.5%), while in the subgroup >75 lower doses were started more frequently (<40mg/day in 21 patients, 28.7%). Lowering corticosteroids to <5mg/day were slower in the subgroup of patients <75 (47.1% within the first 12 months) with respect to the >75 (58%). During the follow-up period 47 patients had at least one relapse, we did not observe statistical differences between both groups (21 patients <75 and 26 patients >75). Time to first relapse was more frequent within the first year of treatment (12 and 16 patients respectively). We could not identify any factor related to relapses in our multivariate analysis. There was no significant differences between both groups about starting MTX (33.3% and 38%) on relapses. Only two patients started TCZ (one in each group). Twenty-nine patients died during follow-up period (11.7% in <75 vs. 31.5% in >75), but none were related with GCA.

Conclusion: 1. No differences were observed in sex, comorbidities (including cardiovascular risk factors) or laboratory markers between both groups. 2. Younger patients presented with less frequent ischaemic symptoms; however we perform a more powerful treatment, both in doses and duration.

Disclosure of Interests: None declared

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AB0469 CLINICAL DISEASE MIGHT BE DIVIDED INTO TWO PHENOTYPES IN ANCA ASSOCIATED VASCULITIS; RESULTS OF A CLUSTER ANALYSIS

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Background: One of the controversial matters in ANCA associated vasculitis is the definition of disease based on clinical characteristics since there is remarkable overlap between disease groups. For instance, single organ disease like renal limited vasculitis (RLV) is not take place most of the definitions or classification criteria.

Objectives: The aim of this study to determine clinical subgroups that may incorporate different clinical phenotypes including RLV in AAV patients followed up in two tertiary centers.

Methods: Baseline clinical features of AAV patients were studied. To analyse our data and identify sub-groups of AAV patients with similar clinical characteristics, a two-step cluster analysis using log-likelihood distance measures was performed. For clustering we evaluated the following variables: gender, age at symptom onset, the presence of major organ involvement (renal, upper and lower respiratory tract, skin, joint, eye) and ANCA specificity.

Results: In total 165 (87 [53%] male, age at diagnosis 51.6 $\pm$ 15.2 years) out of 238 (126 [53%] male, age at diagnosis 51.3 $\pm$ 15.6 years) AAV patients included in the analysis. Some of the demographic and clinical characteristics were summarized in the table 1. There are two distinct cluster in AAV patients. Of 78% those AAV patients with MPO/pANCA, 56% with renal involvement and 89% without ENT involvement were in Cluster 1. Of 77% those patients with PR3/cANCA, 89% with arthritis, 74% with eye involvement, 83% with skin, 91% with upper, and 60% with lower respiratory tract involvement and 92% of those without renal disease were in Cluster 2. Most of the (89%) patients classified as MPA and all as RLV were repositioned in Cluster 1 and 74% of GPA and 64% of EGPA patients were in Cluster 2.

Table 1. Baseline characteristics of 165patients with AAV

Age at diagnosis, mean years $\pm$ SD, (n)	51.6 $\pm$ 15.2, 163
Male, n (%)	87 (52.7)
Laboratory results at diagnosis	
GFR $\geq$ 60, n (%)	100/145 (69)
MPO-ANCA or p-ANCA /Pr3-ANCA or c-ANCA	68 (41.2)/ 97 (58.8)
Variants of AAVn (%)	
MPA	26(15.8)
GPA	108 (65.5)
EGPA	11 (6.7)
RLV	20 (12.1)
Organ systems involved at diagnosis n (%)	
Cutaneous	24 (14.5)
Eye	23 (13.9)
Ear, nose and throat	90 (54.5)
Low respiratory tract	111 (67.3)
Cardiovascular system	5/163 (3.1)
Gastrointestinal system	10/164 (6.1)
Renal	129 (78.2)
Peripheral nervous system	16 (9.7)

GFR: glomerular filtration rate; ANCA: antineutrophil cytoplasmic antibodies; Pr3: proteinase 3; MPO: myeloperoxidase; p-ANCA: perinuclear ANCA; c-ANCA: cytoplasmic ANCA; MPA: Microscopic Polyangiitis; GPA: Granulomatosis and Polyangiitis; EGPA:Eosinophilic Granulomatosis with Polyangiitis; RLV: Renal limited vasculitis

Conclusion: Patients with AAV could be separated into two distinct categories. PR3 ANCA specificity and more organ/system involvement determine one and MPO ANCA specificity in renal disease define other subgroup.

Figure. Determining characteristics of ANCA associated vasculitis clusters

Disclosure of Interests: None declared

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AB0470

EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS (EGPA) - ONE-YEAR FOLLOW-UP STUDY USING MEPOLIZUMAB ANTI-IL5 THERAPY AS A STEROID SPARING THERAPEUTIC APPROACH

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Background: 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.

Objectives: 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.

Methods: 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:

Table 1. EGPA patients receiving Mepolizumab therapy for one year [100mg s/c]

Demographics All [n=13]
Gender ratio M/F
ANCA positive/ negative

Age of diagnosis of asthma
Age of diagnosis of EGPA
Median age

EGPA disease characteristics N=13 [%]

Asthma 13 [100]
Serum eosinophilia or biopsy evidence [N= 12] 12 [100]
Pulmonary infiltrates, non-fixed 8[61.5]
Neuropathy, mono/poly 4[30.7]
Sino-nasal abnormality 12[92.3]
Glomerulonephritis 3[23]
Cardiovascular 4[30.7]

4M:9F
ANCA: 3MPO, 1 PR3 positive/ 9 ANCA negative
35 yrs [IQR 28.5-40]
47 yrs [IQR 43.5-53.5]
51 yrs [IQR 47.5- 60.5]

Table 1. EGPA patients receiving Mepolizumab therapy for one year [100mg s/c]

Prior Immunosuppressants N=13 [%]

Steroids 13[100%]
Cyclophosphamide 6[46%]
Rituximab 6[46%]
Azathioprine 10[77%]
Mycophenolate mofetil 8[62%]
Methotrexate 4[31%]
Campath 1[7%]

Response to therapy M0 [%] Post M12 [%]

Prednisolone dose N= 13
Mean $\pm$ SD 18.925mg $\pm$ 11.44 10.575mg $\pm$ 5.85
Eosinophil count X10⁹/L N=13
Mean $\pm$ SD 0.415mg $\pm$ 0.25 0.035 $\pm$ 0.039
Asthma Control Questionnaire [ACQ] N=5
Mean $\pm$ SD 2.92 $\pm$ 1.27 1.31 $\pm$ 0.79
BVAS N= 13
Mean $\pm$ SD 7.307 $\pm$ 6.29 2.2307 $\pm$ 1.69
Creatinine N=9
Mean $\pm$ SD 68.44 $\pm$ 15.03 69.11 $\pm$ 17.84
Continuation of anti-IL5 therapy N=13 12/13 [92.3%]

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.

Long term plan > 12 months N=13 [%] Current Months Adjuvant therapy 12M

1 Continue
15 Aza
2 Switched Benralizumab 26 MMF [+], IVIG [-]
3 Continue 18
4 Switched Benralizumab 14
5 Discontinued Rituximab 12 MTX
6 Continue 14
7 Continue 24 MMF Reduced
8 Continue 18 MTX [+]
9 Continue 15 MMF [-]
10 Continue 14
11 Continue 13
12 Continue 13 Aza
13 Continue 12

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Figure.