treatment for SD. No prognostic factors were found to correlate with PUK relapses and final visual acuity/ocular perforation.

Conclusions: RA and ANCA-vasculitis are the SD more frequently associated with PUK. Visual outcomes are poor in less than 50% of patients despite of topical and systemic GC/biologic therapy. SD-PUK may emerge previous to the SD diagnosis or with the associate SD in remission.

Disclosure of Interest: None declared

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AB0679 LEVEL OF SERUM 25(OH)D WITH DISEASE ACTIVITY OF A COHORT STUDY

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Background: Takayasu's arteritis (TAK) is a chronic large vessel vasculitis primarily involving the aorta and its major branches. TAK has been considered a rare disease that affected mostly young Asian women^[1]. Its pathogenesis is still under investigation. However, some studies have demonstrated that immune disorder results in TAK. Especially cellular immunity plays a vital role in TAK. Recently, some studies shown that Vitamin D can regulate immune system in rheumatological diseases, such as SLE, RA and so on^[2]. The relationship between Vitamin D and disease activity of TAK has not been reported yet. This study focuses on identifying the role of Vitamin D in pathogenesis of TAK through studying the correlation of serum 25(OH)D level and the disease activity of TAK

Objectives: To evaluate the level of serum 25-hydroxyvitamin D in patients with Takayasu's Arteritis (TAK)

Methods: Totally 57 untreated TA patients (TA group) and 51 healthy people (control group) were enrolled. The level of serum 25(OH)D were measured and compared between groups. The correlations of 25(OH)D level with related indicators were analysed.

Results: Lower concentrations of serum 25(OH)D were detected in TAK patients compared with healthy subjects [(11.91±5.26) ng/ml versus (17.64±8.85) ng/ml] ($p<0.01$). In all patients with TAK, serum 25(OH)D correlated negatively with erythrocyte sedimentation rate (ESR), interleukin (IL)-6 ($r=-0.321$, $p=0.022$; $r=-0.322$, $p=0.031$). There was no correlation between serum 25(OH)D level and NIH score, ITAS2010 score, ITAS.A score, anti-tumour necrosis factor (TNF)- α antibody. TAK Patients with therapy showed a significantly higher serum level of 25(OH)D compared with that before therapy [(10.74±3.49) ng/ml versus (18.66±8.03) ng/ml] ($p<0.01$). After therapy, the changes of 25(OH)D level present a positive correlation with the changes of NIH score, ITAS2010 score AND ITAS.A score.

Conclusions: We observed a high prevalence of vitamin D deficiency in patients with TAK. The 25(OH)D levels in serum was negatively correlated with ESR and IL-6. Levels of 25(OH)D were improved after therapy. The changes of 25OHD level correlation to Disease Activity of Index.

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AB0680 NON OPHTHALMOLOGICAL NEUROLOGIC ISCHAEMIC MANIFESTATIONS OF GIANT CELL ARTERITIS

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Background: Giant cell arteritis (GCA) is a very infrequent cause of stroke. It is diagnosed in 0.15% of brain infarctions. On the other hand, in scientific literature there are very little patients with ischaemic brain infarctions that describes stroke as the clinical presentation of GCA. It might suggest that it is a underdiagnosed condition.

Objectives: To check the frequency of stroke as presentation symptom of GCA and other findings related with it.

Methods: Retrospective observational study of 123 consecutive patients diagnosed of GCA in our hospital. We reviewed the past medical history to obtain sings, symptoms and ultrasound parameters of the first medical evaluation. We searched for: age, sex, hypertension, diabetes, dyslipidemia, anterior ischaemic

optic neuropathy (AION), headache, visual disturbances, Polymyalgia Rheumatica (PMR), jaw claudication, general symptoms, non oftalmological brain ischaemic symptoms, disease outbreak and laboratory test: erythrocyte sedimentation rate (ESR), C reactive protein (CRP), Haemoglobin (Hb). For the analysis we divided the sample into two groups: a). Neurological symptoms b). Other presentations.

For statistical comparisons, we used SPSS version 17.0. Descriptive analysis and comparison was performed of the two groups. χ^2 was used for qualitative values and means comparisons for quantitative.

Abstract AB0680 – Table 1

	Non ophthalmic neurologic symptoms	Non neurologic symptoms	p value
Age *	79±5.42	77.86±8.6	0.62
Sex ** (Women)	7 (58,33%)	67 (60,36%)	0.56
ESR* (mm/h)	66,63±32.24	68,18±30,41	0.89
CRP* (mg/L)	53,73±79,43	42,55±45,35	0.60
Hb* (g/dL)	12,56±2.12	13,34±4,71	0.64
Outbreak**	5 (41,66%)	57 (51,35%)	0.52
Headache**	6 (50%)	68 (61,26%)	0.22
Visual disturbances**	1 (8,33%)	24 (21,62%)	0.27
PMR**	0 (0%)	25 (22,52%)	0.06
Jaw claudication**	0 (0%)	14 (12,61%)	0.19
General symptoms**	1 (8,33%)	20 (18,01%)	0.61
Total patients	12	111	

*Mean ±SD. ** n (%).

Results: Of our 123 patient's cohort: 37 patients (30.08%) suffered from ischaemic events of the internal carotid artery, 25 patients (20.32%) of AION and 12 patients (9.8%) presented with neurological symptoms different from AION.

Out of the 12 patients with non ocular ischaemic symptoms of the central nervous system: 5 (44.66%) were diagnosed of transitory ischaemic accident (TIA), 4 (33.33%) of stroke, 2 (16.66%) of VI cranial nerve paresis, one the patients that presented with III and VI par paresis suffered also from TIA, at last, one patient presented ischaemic phenomena related with small-vessels vasculitis and one patient with dizziness due to cerebellum affection.

Clinical and analytical data are presented in the table:

No patient was presented with PMR or jaw claudication.

3 (25%) patients died during the follow up in the neurologic symptoms group in comparison with 11 (9.90%) of the non neurological (p 0.11).

Conclusions: Stroke is not a rare form of presentation of GCA and should be suspected in all ischaemic brain events that are associated with high acute phase reactants in elderly patients. It is important to identify these patients due to the severity of the disease and the possibility of specific treatment that may avoid new events.

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AB0681 BIOPSY RESULTS FROM PATIENTS WITH SUSPECTED GRANULOMATOSIS WITH POLYANGIITIS IN A DECADE (2005–2015). ALEATORISED SAMPLE ANALYSIS OF CLINICOPATHOLOGICAL CORRELATION

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Background: The diagnostic yield of airway biopsies in granulomatosis with polyangiitis (GPA) is usually less than 50%.

Objectives: To review the histologic diagnostic yield of airway biopsies sent with a suspected GPA diagnosis in a single-centre devoted to respiratory diseases by use of previously published criteria. Also, to know the interobserver variability among in-house pathologists, correlate signs and symptoms with GPA positive histologic findings, and with additional paraclinical data, apply the algorithm proposed by the European Medical Agencies (EMA) to know if a higher number of biopsies confidently supported a GPA diagnosis.

Methods: From 137 airways biopsies during a decade (2005–2015), fifty were randomly selected for the second review by an expert pathologist. Thereafter, with the incorporation of antineutrophil cytoplasm autoantibodies (ANCA) the EMA algorithm was applied. Demographic data were descriptively analysed, and

results expressed according to their distribution. Categorical data, expressed in percentages, were analysed with χ^2 test and variance analysis. The associations of independent variables were analysed with one-tail exact Fisher test. Simple logistic regression was used for variable associations. The interobserver correlation was tested with calculation of the kappa coefficient.

Results: A poor interobserver correlation was found among pathologists (kappa = 0.19), and no airway sign or symptom was predictive of a positive GPA biopsy. Several pitfalls were noticed: lack of adequate clinical information on files (including endoscopic); incomplete relevant information sent to pathologists and inadequate tissue sampling. Nevertheless, in patients with generalised disease, a 2.6 probability to obtain a diagnostic GPA airway biopsy was found. After expert pathologist's review, and applying Devaney et al and Travis et al proposed criteria, from 16 initial GPA diagnoses, the number increased to 25. It further raised to 35/50 randomised biopsies when ANCA results were incorporated, and the EMA algorithm was applied.

Conclusions: Carefully retrieved clinical, endoscopic and serological data, coupled with systematic histopathologic sample review in patients with a GPA suspicion shall be incorporated in an orderly fashion in order to increase the diagnostic yield of this malady, especially in patients with the limited form of the disease.

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AB0682

RISK FACTORS ASSOCIATED WITH RELAPSE OF ANTI-NEUTROPHIL CYTOPLASMIC ANTIBODY-ASSOCIATED VASCULITIS

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Background: Several factors increasing the risk of anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis have been reported. These include pulmonary and cardiovascular lesions, PR3-ANCA-positivity in patients with granulomatosis with polyangiitis, and persistent ANCA-positivity or an increase in the titer of such antibodies.

Objectives: We aimed to identify potentially novel factors predicting relapse in patients with ANCA-associated vasculitis.

Methods: We reviewed data on 73 patients (61 with microscopic polyangiitis [MPA], 12 with granulomatosis with polyangiitis [GPA]; 46 females) treated in our centre from 1998 to 2017 for whom medical histories were available. All achieved at least one remission after induction therapy. Relapse was defined as novel organ involvement or a need for therapy intensification. Follow-up continued to the first relapse or for as long as possible if no relapse was noted.

Results: The median age at disease onset (interquartile range) was 74 years (range: 67–80 years). The relapse rate was 42.5% (MPA 41%, GPA 50%), thus not significantly different between the two groups ($p=0.75$). The median follow-up duration was 23 months (range: 11–65 months) and the median time to relapse was 18 months (range: 10.5–54 months). Although pulmonary and cardiac lesions reportedly increase the relapse rate, neither contributed significantly to the rate in this study. Furthermore, ANCA-positivity after remission and increases in ANCA levels prior to relapse did not significantly increase the relapse risk. In terms of medical histories recorded at the time of first onset of disease, the frequency of diabetes, dyslipidemia, coronary artery disease, and cerebral infarction did not differ significantly between patients who did and did not relapse. However, in MPA patients, a history of hypertension was significantly less in those who relapsed ($p=0.01$). In a multiple logistic regression analysis adjusted for sex and age, history of hypertension was a significant predictor of fewer relapse (odds ratio: 0.23; 95% confidence interval 0.07–0.69, $p=0.009$).

Abstract AB0682 – Table 1. The clinical characteristics of two groups

	Relapse, n=31	Non-relapse, n=42	p	OR (95% CI)
Age, years	70.8±10.8	74.6±9.2	0.10	-
Mean±SD	73 (65–79)	76 (68–82)		
Median (interquartile range)				
Median follow up, month	18 (11–54)	30 (13–67)	-	-
*Time to 1st relapse				
Male/female	10/21	17/25	0.62	0.7 (0.23–2.05)
ANCA phenotype, n (%)	4 (13.0%)	7 (16.7%)	0.75	0.74 (0.14–3.29)
PR3-ANCA	27 (87.1%)	36 (85.7%)	>0.99	1.12 (0.24–5.97)
MPO-ANCA				
Disease type, n (%)	6 (19.4%)	6 (14.3%)	0.75	0.70 (0.17–2.94)
GPA	25 (80.6%)	36 (85.7%)		
MPA				
Organ involvement	24	33	>0.99	0.94 (0.27–3.41)
Pulmonary	1	2	>0.99	0.67 (0.01–13.44)
Cardiovascular				
Medical histories	7	3	0.09	3.70 (0.76–24.44)
Diabetes mellitus	9	7	0.26	
Dyslipidemia	10	28	0.005	2.02 (0.58–7.43)
Hypertension				0.24 (0.08–0.71)

ANCA: antineutrophil cytoplasmic antibody; PR3: proteinase 3; MPO: myeloperoxidase; GPA: granulomatosis with polyangiitis; MPA: microscopic polyangiitis; OR: odds ratio; 95% CI: 95% confidence interval

Conclusions: In addition to known factors, a history of hypertension recorded at the time of disease onset may predict fewer MPA relapse.

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AB0683

TREATMENT WITH STATINS IN PATIENTS STUDIED BY FDG-PET/CT FOR POSSIBLE LARGE VESSEL VASCULITIS IS ASSOCIATED WITH A LOW VASCULAR SCORE

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Background: Polymyalgia rheumatica (PMR), giant cell arteritis (GCA), and fever of unknown origin (FUO) may show large vessel vasculitis (LVV) when studied with FDG-PET/CT. Statins, widely used to lower cholesterol concentrations, have shown anti-inflammatory activity in both the atherosclerotic plaque and in rheumatoid arthritis.

Objectives: To test the hypothesis that the concomitant treatment with statins induces a low uptake of the vessels in patients with PMR, FUO and GCA.

Methods: Consecutive patients with a diagnosis of PMR, GCA or FUO underwent a thorough clinical examination, including drug history, and a PET/CT scan. Arterial uptake of FDG was scored relative to liver uptake as 0=no uptake present, 1=lower than liver uptake, 2=similar to liver uptake, 3=higher than liver uptake. The values of each district were summed to obtain a total vascular score (TVS). A further semi-quantitative analysis of FDG uptake was carried out, drawing regions of interest (ROIs) on the theoretical arterial wall and within the left ventricular chamber (blood-pool, BP). Arterial FDG uptake was quantified by calculating the mean standardised uptake value (SUV) within each ROI and the results expressed as the ratio between mean SUV value of each ROI and BP ROI (SUV/BP).

Results: 129 patients were included, 87 women, with median age of 74 years (range 50–92). 95 patients were diagnosed with PMR, 13 with GCA, 16 with both PMR and GCA and 5 patients presented with FUO. 37/129 patients (28.7%) were assuming glucocorticoids (GC) at the time of examination. The mean interval between onset of symptoms and PET/CT was 85 days (range 4–1957 days). LVV was present in 75 patients (58.2%) when a cut-off ≥ 2 was used and 32 patients (24.8%) had a score of 3.

Twenty/129 patients (15.5%) were treated with statins for hypercholesterolemia. The median TVS was significantly lower in these patients when compared with those not treated with statins (8 [range 1–27] vs. 12 [range 0–42], $p=0.02$). This difference was present at the ascending aorta ($p=0.017$), the aortic arch ($p=0.023$), and the femoral arteries ($p=0.025$). The analysis of SUV was not