Objectives: To understand the mechanism and frequency of the positive temporal artery of GCA in ^{18}F-FDG-PET.
Methods: This was a retrospective chart review of 3 patients with giant cell arteritis who underwent all of ^{18}F-FDG-PET, MRI, CT angiogram, ultrasound and histopathologic evaluation of temporal arteries. To investigate the cases of FDG-PET positive temporal arteries in GCA, a systematic literature review was done in Pubmed using ^{18}F-FDG-PET AND ("temporal arteritis" OR "giant cell arteritis").
Results: A case report: An 85-year-old male presented with muscle weakness. Three years before admission, he experienced pain in his neck and both extremities. Rheumatoid arthritis was diagnosed at another hospital, and the patient was treated with methotrexate and prednisolone, which resolved his symptoms. The medication was discontinued after 2 years. Two months before admission he began coughing due to interstitial pneumonitis, and later developed muscle weakness and difficulty walking. On admission a physical examination revealed swelling of the bilateral temporal arteries. A blood test showed accelerated ESR at 54mm/h and a CRP of 4.6 mg/dL. Ultrasound showed an increased diameter, hypoechoic wall thickening (halo), stenosis, and calcification of the arterial wall of the temporal artery. A contrast CT showed wall thickening in the affected segments, calcification, stenosis and enhancement of the soft tissue around the temporal artery. An ^{18}F-FDG-PET scan indicated increased uptake of ^{18}F-FDG at the temporal arteries whereas no uptake was found in the other arteries including the aorta and carotid arteries. A biopsy of the temporal artery revealed necrotizing vasculitis with a few giant cells and the formation of a microscopic neutrophilic abscess. When compared with 2 other cases of temporal arteritis with a negative ^{18}F-FDG uptake, the severity of inflammation and the number of giant cells in the present case were not remarkably high. A systematic literature review identified 4 cases of ^{18}F-FDG-PET positive temporal arteries in 454 cases of GCA of 82 papers. Of note, large arteries were positive for ^{18}F-FDG-PET in 253 cases of GCA in the same series.
Conclusions: The hierarchy for FDG uptake by resting inflammatory cells is neutrophil > macrophage = lymphocyte in vitro, indicating that the sites where neutrophils dominate are more likely to be visualized by ^{18}F-FDG PET in vivo. In addition to the known usefulness of ^{18}F-FDG-PET in visualizing inflammation in large vessels, the increased uptake of ^{18}F-FDG to the temporal artery may help to identify the neutrophilic inflammation.
Disclosure of Interest: None declared
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AB0567 THE LONG TERM HEALTH RELATED QUALITY OF LIFE (HRQOL) IMPACT ON GIANT CELL ARTHRITIS (GCA) PATIENT

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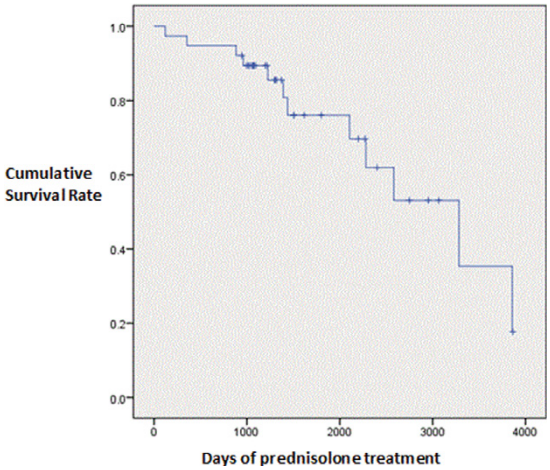
Background: Health related quality of life (HRQOL) of Giant cell Arthritis (GCA) patients is improtant because it adds depth to our understanding of how a disease and its treatments affect them. Though only one previous study has addressed the short term impact of GCA on HRQOL, the long term impact has not fully been investigated.
Objectives: The aim of our study is to assess the long term HRQOL outcomes of GCA patients using the Japanese version of EuroQol 5 Dimention (EQ-5D).
Methods: 40 GCA patients who admitted to our hospital from November 2004 to June 2014 were enrolled. All patients were received prednisolone over 2 years. Patients who had lost their eyesight were excluded because vision concern for HRQOL nor it is difficult to mesure by using EQ-5D. This is a retrospective study and deta were collected by telephone interview. Patients evluated their health status using five dimensions. The EQ-5D score were calculated based on the Japanese version of the value set. Primary outcome is the mortality rate and the norm of EQ-5D score. As a secondary analysis, we classified the patients as follows and compare the mortality rate and EQ-5D score between two groups.

Figure1: Kaplan Meier survival estimate



Group 1: GCA patients who received prednisolone over 5 years.
Group 2: GCA patients who received prdnisolone less than 5 years.
Results: There were 16 male (40%) and 24 female (60%). The median age was 83.5 (95% CI 79.24–87.76). The mortality rate was 37.5% (15 patients). Kaplan-Meier curve is shown in Figure1. The median EQ-5D score was 0.746 (95% confidence interval [CI] 0.852–0.640) and it is lower than Japanese norm (0.853 in male and 0.808 in female). In the secondary analysis, the mortality rate was 56.0% (14 patients) in Group1 and 6.6% (1 patient) in Group2. It was significantly higher in Group 1 ($P<0.05$). The median EQ-5D score was 0.764 (95% CI 0.579–0.870) in Group1 versus 0.768 (95% CI 0.621–0.915) in Group2. There was no statistically significant difference between them ($P=0.813$).
Conclusions: This study focused on GCA patients with prednisolone therapy over 2 years. It showed that EQ-5D was decreased compared with the Japanese norm but it didn't clearly decrease after 2 years of treatment. These findings suggest the value of measuring health status in GCA patients by EQ-5D at least first 2 years of treatment, because it would allow comprehensive evaluation of the patient's health condition and add another dimension to the subjective symptoms and laboratory data.
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AB0568 APPLICATION OF OZONATED WATER IN ORAL ULCER PATIENTS WITH BEHCET'S DISEASE

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Background: Behcet's disease is a systemic vasculitis disease of unknown etiology. Oral ulcer is the most common symptoms, the ulcer is various, the swelling and pain is obvious, and it is easy to recurrent, these symptoms affected the patient's diet and life seriously.Therefore, it is important to care the patients with Behcet's disease of oral ulcer.The ozonated water had many functions such as immune activation and immune regulation, it can induce the production of many cytokines,promote the repairment of oral epithelium.At the same time,the ozonated water had a direct effect on the nerve endings,it played a better analgesic effect, it was widely used in oral mucositis which induced by chemotherapy.But there were few studies about application ozonated water in the patients with Behcet's disease of oral ulcer, it was not widely used in clinical practice.
Objectives: Apply the ozonated water in patients with Behcet's disease,observe the effectiveness in patients with Behcet's disease of oral ulcer.
Methods: From June 2014 to June 2016,82 cases of hospitalized patients with Behcet's disease were randomly divided into study group and control group (n=41), the control group used nursing method of gentamycin sulfate solution and nystatin solution gargle alternatively,the research group using ozonated water gargle,observe and evaluate the healing effect of two groups of patients.
Results: The research group had significant improvement in healing oral ulcer and relieving pain ($P<0.05$).
Conclusions: Ozonated water had a perfect effect in patients with Behcet's disease of oral ulcer.
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Disclosure of Interest: None declared
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AB0569 CHANGE IN SERUM LEVEL OF SOLUBLE E-SELECTIN AND MMP-9 IN CHILDREN WITH KAWASAKI DISEASE

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Objectives: Kawasaki disease (KD)is a kind of febrile disorder without definite etiology. Coronary artery aneurysms are the major complication of Kawasaki disease (KD). r11le pathogenesis of the vascular damage remains unknown.This study Wfl8 conducted to explore the pathophysiological role of E-selectin (ES), CMatrix metalloproteinase 9 (MMP-9) in KD.and to look for the evidenee of direct relationship between the plasma levels of ES,MMP-9 and the incidence of the coronary artery lesion (CAL).

Methods: Soluble ES and MMP-9,were measured in 68 patients with KD,20 patients with febrile disease and 20 healthy children by using double antibody sandwich enzyme linked immunosorbent assay (ELISA).Patients with KD were separated into acute phase group, subacute phase group, recovery phase group. coronary artery lesion group (CAL), non-coronary artery lesion group (NCAL).
Results: KS and MMP-9 levels in the acute phase group,subacute phase group were significantly higher than those in the healthy group. Plasma ES and MMP-9 levels of CAL group were significanfly higher than those of NCAL group in acute phase. ne peak level of ES and MMP-9 appeared in the acute phase.There Was a significant correlation between KS and MMP-9 levels in KD patients ($r=0.643$, $P<0.01$).
Conclusions: the increase of plasma PS and ES levels in KD acute phase and subacute phase might play an important role in the pathophysiology of the VasCUlax damage.KS and MMP-9 may potentially be a predictor of CAL in patients.
Disclosure of Interest: None declared
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AB0570 CLASSIFICATION, EPIDEMIOLOGY, AND CLINICAL PHENOTYPES OF PRIMARY VASCULITIDES IN COLOMBIA

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Background: Primary vasculitides usually pose a diagnostic challenge. They represent a wide spectrum of heterogeneous vascular disorders characterized by variable target vessel involvement, vascular abnormalities, and end organ damage [1]. Several studies about primary vasculitides expose epidemiologic data, mainly from North America and Europe. Nevertheless, data in Latin America is scarce [2].
Objectives: To describe the prevalence and clinical presentation of primary vasculitides.
Methods: This was an observational cross-sectional study in which well-characterized patients were assessed from 2001 to 2016. Each patient was evaluated by the same rheumatologist in a single rheumatology outpatient center in Bogota, Colombia. Patients were classified either according to ACR 1990 criteria (Granulomatosis with polyangiitis, Eosinophilic granulomatosis with polyangiitis, Henoch-Schönlein purpura, Polyarteritis nodosa, Takayasu arteritis, Giant cell arteritis), EMA algorythm (Microscopic polyangiitis) or 2012 revised Chapell Hill nomenclature criteria (Variable Vessel Vasculitis, Single-Organ Vasculitis). ANCA-Associated Vasculitis (AAV) was used to define Small Vessel Vasculitis (SVV) not fulfilling either ACR 1990 criteria or EMA algorythm.
Results: A total of 56 patients were included. Baseline characteristics of patients were as follows: female gender 75%, mean age 56±15.7 years, and median disease duration 3 (IQR 6) years. Most of patients (73%) were diagnosed at first year of disease onset, and fulfilled international classification criteria (63%). SVV was the most frequent phenotype (55%), and C-ANCA/anti-PR3 were the most frequently identified auto-antibodies (40%). Musculoskeletal manifestations (arthralgia, arthritis, and myalgia), mucocutaneous disorders (including vasculitic/necrotic lesions, mucosal ulcers, and purpura), neurological compromise (peripheral and central), and renal involvement (acute renal failure, glomerulonephritis, and lung-kidney syndrome) were the most frequently reported onset symptoms in 29%, 29%, 23%, and 21%, respectively. Interestingly, most of patients did not develop organic compromise other than the onset manifestation form. Thirteen percent of patients fulfilled polyautoimmunity criteria and 9% presented with multiple autoimmune syndrome. Antiphospholipid syndrome was the most common associated autoimmune disease described. Corticosteroids were the most common treatment used in 93% of patients, followed by azathioprine in 57%, cyclophosphamide, methotrexate, and rituximab in 29%, and antimalarials in 27% (Tab.1). No deaths occurred during follow-up.

Table 1. Demographic and immunologic characteristics.

Female gender, n [%]	42 [75]
Mean age at onset, years	51 ± 16.7
Mean age at diagnosis, years	53 ± 15.9
Polyautoimmunity*	7 [13]
Multiple Autoimmune Syndrome **	6 [9]
AAV ANCA distribution	n [%]
C-ANCA/PR3*	12 [40]
P-ANCA/MPO	11 [37]
Both ANCA	3 [10]
No data	4 [13]
Type of vasculitis	n [%]
Small Vessel	31 [55]
AAV	19 [34]
Granulomatosis with polyangiitis	8 [14]
Eosinophilic granulomatosis with polyangiitis	2 [4]
Microscopic polyangiitis	1 [2]
Henoch-Schönlein purpura	1 [2]
Medium Vessel	4 [7]
Polyarteritis nodosa	4 [7]
Large Vessel	13 [23]
Takayasu arteritis	5 [9]
Giant cell arteritis	8 [14]
Other	8 [14]
Behçet	3 [5]
Aortitis	1 [2]
Skin-limited	3 [5]
Cogan syndrome	1 [2]

* The presence of more than one autoimmune disease in a single patient. Distribution of autoimmune comorbidities were as follows: antiphospholipid syndrome, systemic lupus erythematosus-SLE like (3 each); autoimmune hepatitis, autoimmune thyroid disease, myasthenia gravis, pyoderma gangrenosum, rheumatoid arthritis, Sjögren's syndrome, and vitiligo (1 each).
** Multiple Autoimmune Syndrome: The presence of three or more well-characterized autoimmune diseases in the same patient.
* A case of TAK with positive C-ANCA was excluded.

Conclusions: Vasculitides are conditions with several subphenotypes, being ANCA-associated the most frequently reported. Onset symptoms seem to be the main drivers of disease evolution. Appropriate and prompt diagnosis is critical to enable timely intervention, aimed to prevent end organ damage and reduce morbidity in these patients. Controlling disease activity and preventing progression is the milestone of treatment. Characterization of Latin America population is pivotal to raise awareness of health-care workers, and policy makers.
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AB0571 BIRMINGHAM VASCULITIS ACTIVITY SCORE MORE THAN 9.5 AT DIAGNOSIS IS AN INDEPENDENT PREDICTOR OF REFRACTORY DISEASE OF GRANULOMATOSIS WITH POLYANGITIS

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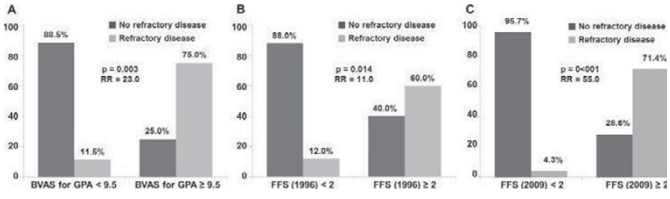
Background: Granulomatosis with polyangiitis (GPA), that is identical to what has been called Wegener's granulomatosis, is one of anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitides (AAV). GPA is characterized by necrotising granulomatous inflammation usually affecting small to medium vessels, and it often involves the upper and lower respiratory tracts and commonly provokes necrotising glomerulonephritis. It has been reported that the mortality rate in untreated patients increased up to 90% within 2 years after diagnosis, and the overall mortality rates were ranging from 12% to 44% within 4 to 10 years. The major causes of death are known as cardiovascular disease, adverse events of immunosuppressive agents and major organ involvement of GPA. If there might be predictors of relapse or refractory disease of GPA during the follow-up duration, they can help physicians to select the induction therapeutic regimens, decide the duration of the maintenance therapeutic regimens and adjust the follow-up interval in order to improve the disease course of GPA.
Objectives: We investigated whether clinical manifestations, anti-neutrophil cytoplasmic antibodies (ANCAs), Birmingham vasculitis activity score (BVAS) for granulomatosis with polyangiitis (GPA) and five factor score (FFS) at diagnosis can predict relapse or refractory disease in 30 histology-proven GPA patients with the follow-up duration ≥12 weeks.
Methods: We reviewed the medical records of 30 GPA patients. We collected clinical data, ANCAs, BVAS for GPA, FFSs at diagnosis, and we compared variables between the two groups based on relapse or refractory disease. The optimal cut-offs were extrapolated. Multivariate logistic regression and Cox hazard model analyses were conducted to identify predictors of refractory disease.
Results: The mean age and follow-up duration of patients were 63.3 years old and 45.2 months. The mean initial BVAS for GPA, FFS (1996) and FFS (2009) were 5.4, 0.6 and 1.0. There were no significant predictors of relapse. The mean BVAS for GPA, FFS (1996) and FFS (2009) of patients with refractory disease were higher than those without ($p<0.05$ for all). Patients having BVAS for GPA ≥9.5, FFS (1996) ≥2 and FFS (2009) ≥2 exhibited significantly enhanced risk of refractory disease than those having not (RR 23.0, RR 11.0, and RR 55.0, respectively), and low cumulative refractory disease free survival rates. Multivariate Cox hazard model analysis proved BVAS for GPA ≥9.5 was an independent predictor of refractory disease during the follow-up duration (OR 12.892).



Conclusions: BVAS for GPA ≥9.5 was an independent predictor of refractory disease during the follow-up duration ≥12 weeks.