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**AB0555 ANCA VASCULITIS AND CLASSIC CARDIOVASCULAR RISK FACTORS: COINCIDENCE OR CAUSALITY?**

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**Background:** Unlike other systemic autoimmune diseases (rheumatoid arthritis or systemic lupus erythematosus), the mechanisms involved and the association between ANCA vasculitis with cardiovascular risk factors (CVRF) or cardiovascular events (CVE) are unknown. There may be a phenomenon of "early" atherosclerosis that contributes to an increased cardiovascular risk. This process would not be explained only by the co-existence of the classics CVRF.

**Objectives:** We reviewed the prevalence of classical CVRF and CVE in a cohort of patients diagnosed with ANCA vasculitis. We analyzed whether the appearance of these factors was prior to or subsequent to the diagnosis of the disease or during its evolution.

**Methods:** A descriptive cross-sectional analysis of the classic CVRF and CVE was analyzed in a cohort of patients with ANCA positive vasculitis in follow-up in the Autoimmune Diseases Division of a Spanish hospital. The main demographic characteristics, type of vasculitis and the presence of arterial hypertension, type 2 diabetes mellitus (T2DM), dyslipidemia, smoking and obesity were reviewed. Likewise we analyzed CVE (heart failure -HF-, acute coronary syndrome -ACS-, stroke or transient ischemic attack -TIA- and peripheral arteriopathy -PA-) and if each factor was presented at the diagnosis of the disease or they appeared during the evolution after starting immunosuppressive treatment.

**Results:** A total of 35 patients were studied: 21 women (60%) and the average age was 53 years old. A number of 15 were microscopic polyangiitis, 9 granulomatosis with polyangiitis and 11 allergic granulomatous angiitis. Twenty one patients presented hypertension, 9 of them (42.9%) developed it after the diagnosis of vasculitis. From 7 patients with diabetes mellitus, 5 of them were before diagnosed with vasculitis. Nineteen presented dyslipidemia and 9 of them (47.4%) presented lipid alteration during the evolution of vasculitis. Overweight/obesity was evident in 4 of the 11 cases after the diagnosis of vasculitis. Only 5 patients did not have a cardiovascular event. ACS was observed in 3 patients, HF in 2 and PA in 1 patient. There were no cases of TIA or ischemic stroke. Four of them had dyslipidemia (3 after diagnosis of vasculitis) ( $p=0.18$ ) and 3 had hypertension (2 after diagnosis of vasculitis,  $p=0.66$ ). Three patients were overweight or obese ( $p=0.3$ ) and two had T2DM ( $p=0.2$ ), both of them appeared after the diagnosis. Previous history of smoking was observed in 4 of the 5 patients ( $p=0.06$ ). In 3 patients (71.4%) the cardiovascular event was recorded prior to vasculitis diagnosis and only in 2 cases it occurred during the evolution.

**Conclusions:** This study shows that a high percentage of patients with ANCA vasculitis also presents some type of classic CVRF despite of CVE were not elevated. The diagnosis and treatment of ANCA-positive vasculitis did not statically correlate with a greater number of CVE, therefore it would be necessary to carry out studies with a larger number of patients in order to establish conclusions. It is not well defined that weight may have these factors in the prognosis of patients with ANCA vasculitis. These data suggest the need to maintain a close monitoring and therapeutic approach of classic CVRF in this relatively young group of patients.

**References:**

[1] Cohen Tervaert JW. *Best Pract Res Clin Rheumatol.* 2013 Feb;27 (1):33–44.

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**AB0556 INCIDENCE AND RISK FACTORS OF INFECTIONS IN SYSTEMIC NECROTIZING VASCULITIS**

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**Background:** Infections in patients with systemic vasculitis represent one of the main causes of mortality. Risk factors of infection such as corticosteroid use, intensity of immunosuppressive therapy, age, presence of leucopenia, lymphopenia, hypogammaglobulinemia, associated organic involvement, and dialysis dependence have been identified

**Objectives:** a) To determine the incidence of infection in patients diagnosed with: Polyangiitis with Granulomatosis (GPA), Eosinophilic Polyangiitis with Granulomatosis (EGPA), Microscopic Polyangiitis (PAM) and Panarteritis Nodosa (PAN), b) clinical characteristics and associated risks factors.

**Methods:** Analytical, observational, retrospective study. Data source: clinical records of patients diagnosed with ANCA associated vasculitis and Panarteritis Nodosa, evaluated in a center of rheumatology (2000–2016). Variables: Demographic data, clinical manifestations, laboratory data, infectious events serious (requiring hospitalization or prolonged antibiotic/antiviral treatment, recurrences of herpes zoster virus or opportunistic infections), sites of infection, isolated microorganisms, mortality related to the infectious event

**Results:** 80 patients, 61.25% women. Mean age at diagnosis: 49.2 years (range 18–77). Types of vasculitis: 41.2% GPA, 18.7% EPGA, 26.25% PAM, 3.73%

PAN not associated with HBV and 10% ANCA-associated vasculitis that did not met classification criteria. Systemic involvement (68%), pulmonary (59%), renal (58%) and otorhinolaryngology (43.6%) were the most frequent. 36 infectious events were recorded in 28 patients. Follow-up time: Median 22 m (IQR6–64). Incidence of infection: 38.4%, with a median of 3 m (IQR 1–18 m) from diagnosis of vasculitis. Low respiratory infections (40.7%), sepsis (39.3%), and urinary tract infections (15%) were the most common. 25% of these patients presented a second infectious event, being low respiratory tract the most frequent site (47%). Two patients had a 3rd event (soft tissue infection, septic shock). Bacterial etiology was the most prevalent (45%). Mortality at the 1st event was 14.3% (n: 4). 71.4% of patients were in the induction phase of treatment. Immunosuppressants used prior to infectious event: cyclophosphamide (48.1%), azathioprine (11.1%), methotrexate (7.4%), mofetil mycophenolate (3.7%), none (22.2%). Corticosteroids  $\geq 30$  mg/d were observed in 35.7% patients, ranging from 7.5–30 mg/d (10.7%), and  $\leq 7.5$  mg/d in 35.7%. Presence of leukopenia (26%), lymphopenia (44%), hypoalbuminemia (24%), renal insufficiency (63%) and dialysis dependency (37%) were identified in patients with infectious events. Renal involvement ( $p<0.01$ ) and dialysis dependence ( $p<0.001$ ) were significantly associated with infection.

**Conclusions:** The incidence of infection was 38.4%. Lower airway infections, septicemia and urinary tract infections are the most commonly implicated sites. Most infections occurred in the induction phases of the disease. Dialysis dependence and presence of renal involvement were significantly associated with the presence of infection.

**References:**

[1] Debouverie O. Infections Events During the Course of Systemic Necrotizing Vasculitis A retrospective study of 82 cases. *La Revue de Medicine Interne* 2010; 35: 636–642.

[2] Kronbickler A. Frequency, risk factors and prophylaxis of infection in ANCA-associated vasculitis. *Eur J Clin Invest* 2015; 45 (3): 346–368.

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**AB0557 HEART LESSON IN EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS**

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**Background:** Eosinophilic granulomatosis with polyangiitis (EGPA) is a disorder characterised by systemic small vessel vasculitis, that occurs typical in patients with a positive history of late-onset asthma and allergic rhinitis. Cardiac involvement is the major cause of mortality. There is required a standardised method to assess cardiac involvement in EGPA.

**Objectives:** To assess the clinical and imaging characteristics of EGPA patients with cardiac involvement in a tertiary referral hospital.

**Methods:** Fourteen patients (pts) with EGPA were retrospectively analysed between 2010–2016, in Rheumatology Department in Cluj-Napoca. All patients were screened for cardiac involvement by electrocardiogram (ECG) and cardiac ultrasonography (CUS). Cardiac involvement was defined as follows: ventricular hypertrophy, kinetic abnormalities, valvulopathy, pericardial effusion or diastolic dysfunction. Cardiac magnetic resonance (CMR) and coronarography was assessed in 4 pts with ECG or CUS abnormalities.

**Results:** Characteristics of EGPA patients is detailed in table 1. Six out of 14 pts had cardiac involvement (table 2). Only one patient was symptomatic. CMR abnormalities were: endocardial fibrosis in 2 pts, subepicardial inflammation

Table 1. Demographic characteristic of EGPA patients. EGPA, eosinophilic granulomatosis with polyangiitis; Cardiac, patients with cardiac involvement, Non cardiac, patients without cardiac involvement; ANCA, anti-neutrophil cytoplasmic antibody

Characteristics of EGPA Patients	n=14	Cardiac (n=6)	Non cardiac (n=8)
Age at onset, yr $\pm$ SD	54.57 $\pm$ 9.7	53 $\pm$ 12.19	55.75 $\pm$ 8.04
Female, n	8	4	4
History of astm, n	7	3	4
ANCA (+), n	5	3	2
Organ involvement, n			
Renal	1	1	0
Pulmonary	9	4	5
Neurologic	10	5	5
Ophthalmic	1	0	1
Skin	6	1	5

Table 2. Electrocardiographic and echocardiographic findings in EGPA patients with cardiac involvement

Electrocardiographic and echocardiographic findings	n=6
Conduction disorders	2
Ischemia in inferior leads, n	1
Pericardial effusion, n	4
Kinetic abnormalities, n	3
Septal thickening, n	3
Mitral insufficiency, n	1
Diastolic dysfunction, n	4

and fibrosis in 1 patient, ventricular hypoperfusion in 2 pts and hypertrophic cardiomyopathy (HCM) in 2 pts. The pts with subepicardial inflammation and HCM had a more severe outcome. Three out of the 6 pts with cardiac involvement were pANCA (+). Hypereosinophilia was significantly higher in the group with cardiac involvement ( $p < 0.012$ ). None of the patients had positive coronarography.

**Conclusions:** Cardiac involvement is frequent and is associated with hypereosinophilia. Absence of pANCA was not associated with the cardiac involvement, in contrast with other publications. CMR makes the difference between inflammatory and noninflammatory lesions, being useful in clinical assessment and in treatment decisions, therefore this examination could avoid a fatal outcome. Furthermore, in the future, CMR may replace cardiac biopsy.

**References:**

- [1] Thomas Neumann Cardiac Involvement in Churg-Strauss Syndrome Impact of Endomyocarditis. *Medicine* (Baltimore). 2009 Jul;88(4):236–43.  
 [2] Nir Pillar, MD Hypereosinophilic Syndrome With Cardiac Involvement: Early Diagnosis by Cardiac Magnetic Resonance Imaging. *Canadian Journal of Cardiology* 28 (2012) 515.e11–515.e13.

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**AB0558 BIOSIMILAR INFlixIMAB FOR BEHÇET'S SYNDROME**

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**Background:** The efficacy and safety of biosimilar infliximab has been studied in several inflammatory conditions and biosimilar was approved for all indications of the reference product in several countries. However, to the best of our knowledge, there was no published reports on its use in Behçet's syndrome (BS).

**Objectives:** We aimed to report our experience with biosimilar infliximab for the treatment of 3 different types of organ involvements in BS.

**Methods:** We reviewed the charts of all BS patients who were prescribed infliximab in our multidisciplinary BS clinic. Among the 88 patients who were prescribed infliximab, 4 had used biosimilar infliximab (5 mg/kg) due to refractory disease despite conventional immunosuppressives.

**Results:** *Case 1:* The first patient was a 28-year-old man who had received azathioprine (AZA), cyclosporine-A and methotrexate for 6 years for ocular involvement. Six months after the immunosuppressives were stopped due to sustained remission he had a stroke with right hemiparesis. Cranial MRI revealed venous infarct extending from posterior limb of left internal capsule to pons and mesencephalon, involving corpus callosum. Cervical MRI revealed a hyperintense lesion between C3-C8 segments. His cranial MR venography excluded sinus thrombosis. He received intravenous pulse corticosteroid followed by biosimilar infliximab. He achieved clinical remission and his MRI at month 3 showed almost total regression of the lesions. He is still in remission at 7th month of therapy. *Case 2:* The second patient was a 24-year-old man using AZA 2.5 mg/kg/day for refractory skin lesions when he developed bilateral external iliac vein and right common iliac vein thrombosis. Biosimilar infliximab was added to AZA. His abdominal superficial collateral vein distension regressed and Doppler ultrasonography at month 4 showed recanalization in bilateral external iliac veins and residual thrombosis only in the right common iliac vein. *Case 3:* The third patient was a 41-year-old man who had used colchicine, AZA, sulfasalazine, interferon-alpha and adalimumab for refractory arthritis. Biosimilar infliximab was started, with only a partial response. After one year treatment was switched to etanercept 50 mg/week and is attack-free for the last 7 months. *Case 4:* The fourth one was a 26-year-old man who was prescribed infliximab for panuveitis refractory to AZA, cyclosporine-A and interferon-alpha. The first infusion was biosimilar infliximab, but the following infusions were reference infliximab due to reimbursement policy of the hospital. There were no adverse events after switching to reference infliximab and the patient is doing well at 8 months of therapy.

**Conclusions:** Our limited experience showed that biosimilar infliximab may be effective for BS patients refractory to conventional immunosuppressives.

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**AB0559 IMPROVING THE MANAGEMENT OF GIANT CELL ARTERITIS: A REVIEW OF CARE PATHWAY FOR PATIENTS WITH SUSPECTED GIANT CELL ARTERITIS IN A DISTRICT GENERAL HOSPITAL**

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**Background:** Giant cell arteritis (GCA) requires prompt diagnosis and treatment to prevent irreversible neuro-ophthalmic complications. Conversely, misdiagnosis leads to unnecessary treatment with high dose glucocorticosteroids (GC) and their associated complications. The British Society of Rheumatologists (BSR)

Guideline emphasises early recognition of symptoms and prompt treatment when index of clinical suspicion is high.

At East Surrey Hospital (ESH), we noted that some patients were not managed in accordance with BSR guidelines. Additionally, there is no existing care pathway for patients with suspected GCA to be referred to Rheumatology and for Temporal Artery Biopsy (TAB), often resulting in delayed care provision, or unnecessary use of healthcare resources.

**Objectives:** This study aims to audit the management of patients with suspected GCA against BSR guidelines. It also aims to evaluate patients' journey, to identify inefficiencies within the management pathway, in order to initiate improvements in service.

**Methods:** Case notes of patients seen in ESH with suspected GCA between March 2015 and December 2016 were reviewed retrospectively. Cases were identified through keyword search on hospital discharge letters and Rheumatology clinic letters.

**Results:** Case notes of 67 patients (21M, 46F) were analysed. Of those presenting with suspected GCA, 31% fulfilled ACR classification criteria. 28% had documented visual symptoms at presentation.

**Concordance with BSR guidelines:** 79% of patients were started on GC at presentation. Of these 15% had a TAB within 7 days of starting GC. 34% were seen by a Rheumatologist within a week of presentation. Of those referred for a TAB 47% were performed within a week of referral.

**Care Pathway:** The majority of patients (78%) first presented to GPs. Despite this, only 64% of referrals to rheumatology were by GPs. Other referral sources included the Acute Medical Unit (27%) and ophthalmology (5%). 49% were seen by a Rheumatologist within 7 days from referral. 25% had a final diagnosis of GCA.

**Conclusions:** The small proportion of patients with a final diagnosis of GCA highlighted that early Rheumatology assessment is important to minimise unnecessary TAB and high dose GC. Additionally, the lack of a structured care pathway and a standardised referral system for GCA meant that a large proportion of patients had delay in the diagnosis, inappropriate treatment with GC, and unnecessary TAB. These added to the burden of other already stretched medical specialities.

In light of this; a GCA pathway was implemented to enable rapid access to Rheumatology in patients with suspected GCA. The on-call team was advised to redirect any GP or A&E referrals with suspected GCA to the rheumatology on-call bleep. Patients will be assessed and managed by the rheumatology on-call Registrar or Consultant within 24 hours. The impact of these new implementations will be reaudited in 2017.

**References:**

- [1] Bhaskar Dasgupta, Frances A. Borg, Nada Hassan, Leslie Alexander, Kevin Barraclough, Brian Bourke, Joan Fulcher, Jane Hollywood, Andrew Hutchings, Pat James, Valerie Kyle, Jennifer Nott, Michael Power, Ash Samanta; BSR and BHRP guidelines for the management of giant cell arteritis. *Rheumatology* 2010;49(8):1594–1597.

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**AB0560 STUDY ON STREPTOCOCCAL INFECTION RELATIONSHIP WITH HENOCH-SCHONLEIN PURPURA IN CHILDREN**

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**Objectives:** To study hemolytic Streptococcus infection relationship with Henoch-Schonlein Purpura in children.

**Methods:** 42 cases in children with Henoch-Schonlein Purpura (Observer Group) and healthy children in 40 cases of physical examination (the control group) for blood antistreptolysin O (ASO) detection, observation group at the same time children are divided into (belly-non-abdominal Purpura and Purpura group set and repeatedly attacks groups and the Group of non-recurrent) for statistical analysis.

**Results:** Observation group in the blood ASO detection positive 22 cases, accounted for 52.4%; normal control group children 40 cases, blood ASO detection positive 2 cases, accounted for 5%, both comparison differences has significantly significance ( $\chi^2=22.22$ ,  $p < 0.01$ ); abdominal type Purpura children with 23 cases, blood ASO detection positive 17 cases, accounted for 73.9%; non-abdominal type Purpura children with 19 cases, blood ASO detection positive 5 cases, accounted for 26.3%, both comparison differences has significantly significance ( $\chi^2=9.45$ ,  $p < 0.01$ ); 14 cases in children with recurrent Henoch-Schonlein Purpura, ASO blood test positive in 12 cases, 85.7%, non-recurrent attacks of 28 cases of children with Henoch-Schonlein Purpura, ASO blood test positive in 10 cases, 35.7%, comparing the two differences are significant ( $\chi^2=9.35$ ,  $p < 0.01$ ).

**Conclusions:** Streptococcal infections may be the important factor related to Henoch-Schonlein Purpura in children. Purpura and Purpura of abdominal type recurrence is related with streptococcal infection, which is the great value to treatment.

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