Study's endpoint was the proportion of patients achieving sustained complete remission of BD for at least 3 years after cessation of the anti-TNF agent.
Results: A total of 28 patients in whom infliximab and/or adalimumab treatment was given, always combined with azathioprine unless not tolerated (n=2), and discontinued anytime before December 2013 were eligible for analysis. Following cessation of successful anti-TNF treatment (median duration of 2 years) 13/28 patients achieved the study's end-point. The main reason for anti-TNF administration was sight-threatening ocular disease (n=12) or intestinal disease (n=1). The remaining 15 patients relapsed within 1.5 year (main reason for anti-TNF: ocular disease, n=9; neuro-BD, n=2; severe mucocutaneous disease, n=3; intestinal disease, n=1; median treatment duration of 24 months); 12/15 were successfully re-treated with anti-TNF. So far, 3 of them (ocular disease, n=2; neuro-BD, n=1) have achieved the study's end-point (median re-treatment duration of 2 years). Overall, our 16 patients who achieved the study's end-point (57%) are in complete disease remission ranging from 3 to 12 years (5.7 years, median). Nine patients with severe ocular disease are currently any drug-free (32%), whereas the 7 remaining patients are on low doses of conventional immunosuppressive therapy (25%). Notably, those patients on drug-free remission had shorter median disease duration at initiation of anti-TNF treatment, compared to the remaining patients (1 versus 3 years, respectively).
Conclusions: Sustained drug-free remission for many years after cessation of successful anti-TNF treatment is feasible in some patients with severe BD. Since anti-TNF-induced "cure" can never be differentiated from a spontaneous remission by natural history, further studies should examine whether early anti-TNF treatment must be intended for every patient with severe BD.
References:
[1] Hatemi G, et al. EULAR recommendations for the management of Behçet disease. Ann Rheum Dis. 2008 Dec;67(12):1656–62.
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FRI0307 AN OUTCOME SURVEY OF 100 PATIENTS WITH CEREBRAL VENOUS SINUS THROMBOSIS DUE TO BEHÇET'S SYNDROME FOLLOWED UP AT A SINGLE, DEDICATED CENTER

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Background: Behcet's syndrome (BS) is a well-recognized cause of cerebral venous sinus thrombosis (CVST).
Objectives: We aimed to assess the outcome of a large cohort of patients with CVST due to BS attending a single dedicated center.
Methods: We identified 100 (81 M/19 F) patients with BS who were diagnosed as having CVST. All contacted were called back to the outpatient clinic for clinical and imaging re-evaluation.
Results: The mean age of the patients at the onset of the symptoms was 28±10 years. A total of 48 patients developed CVST before or at the onset of ISG fulfillment, while 52 developed CVST after a median 3 [2–8] years of ISG fulfillment. Superior sagittal (n=47) and transverse sinuses (n=46) were most commonly involved followed by sigmoid sinus (n=26) and jugular vein thrombosis (n=15).
A total of 59 (53 M/ 6 F) patients had vascular involvement in addition to CVST: these were deep vein thrombosis of the lower extremities (n=47), pulmonary artery involvement (n=17), Budd-Chiari syndrome (n=9), vena cava superior thrombosis (n=6) and major arterial disease (n=3). In about half (32/59), CVST preceded any type of additional vascular involvement. Eye involvement was seen in 37, parenchymal CNS involvement in 8 (all later than CVST) and gastrointestinal involvement in 5 patients.
Seven patients had died. By the end of the study, 87 patients were alive and contacted with a median follow-up time of 11 [6–15] years. Only 6 patients had a relapsing CVST course.
Information about medical treatment was present in detail in 87 patients of whom 75 received short courses of glucocorticoids with (n=12) or without anti-coagulants. A total of 81 patients received immunosuppressive agents, most commonly azathioprine. Four patients underwent lumbo-peritoneal shunting surgery (1 was successful) and 1 with arterio-venous fistula underwent vascular embolization.
Fifty patients were re-evaluated at the clinic. None had of symptoms of intracranial hypertension. Ophthalmological examination showed that 17 patients had complications such as bilateral optic atrophy (n=3), bilateral papilledema (n=5), bilateral optic disc pallor (n=4) and fibrotic scars around optic disc (n=5). Sensorineural type hearing loss was detected in 4 patients. Neurological examination was found to be normal in 43 patients with isolated CSVT, whereas abnormal in the remaining 7 patients with concomitant parenchymal CNS involvement.
Cranial MR/MR venographies at the end of follow-up, were abnormal in 36 patients showing occlusion/ irregularity/ hypoplasia or collaterals in the sagittal (n=19) or transverse sinus (n=17). In the remaining 14, MR venographies were normal.
Conclusions: CVST due to BS is closely associated with vascular involvement in the body and may be considered as a risk factor for future vascular involvement. CVST relapses are rare; however, the course is not uneventful: visual acuity or field may be impaired totally or partially because of optic disc atrophy; in addition hearing deficits may occur.
Disclosure of Interest: None declared
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FRI0308 PREDICTORS OF HYPOGAMMAGLOBULINAEMIA IN RITUXIMAB TREATED PATIENTS. A RETROSPECTIVE ANALYSIS ON A MONOCENTRIC COHORT

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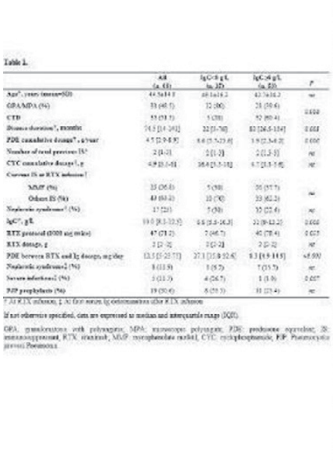
Background: Rituximab (RTX), a chimeric monoclonal antibody against CD20, is increasingly used in the treatment of B-cell lymphomas and autoimmune conditions. It has been shown that some patients develop hypogammaglobulinaemia after treatment.
Objectives: To assess frequency and predictors of hypogammaglobulinaemia after RTX treatment in a monocentric cohort of patients affected with granulomatosis with polyangiitis (GPA), microscopic polyangiits (MPA) and connective tissue diseases (CTD).
Methods: We retrospectively reviewed all patients receiving RTX and concomitant/sequential immunosuppressants between 2007 and 2016 in a single rheumatologic center. Serum levels of total Ig and lymphocyte subsets were recorded at the time of RTX administration and 3–6 months later. We investigated the frequency of hypogammaglobulinaemia (IgG<6 g/L) and its related events.
Results: 72 patients, 30 (41.6%) GPA/MPA, 25 (34.7%) systemic lupus erythematosus, 13 (18.1%) systemic sclerosis and 4 (5.6%) poly-dermatomyositis were treated with RTX. We analyzed 113 RTX infusions, with 41 (36.2%) retreatments (median 2 [2–6]). We excluded 12 patients/18 infusions due to incomplete data.
RTX was administered at the dosage of 1000 mg twice in 68.1% of patients and 375 mg/m^2 weekly in 31.9%. IgG levels after RTX infusion were available in 68 (71.6%) patients. We observed a significant decrease of IgG levels between baseline and 3–6 months after RTX infusion in all patients (0.001). The frequency of patients with IgG<6 g/L was 22.1%, and 8.8% had IgG<4 g/L, significantly higher in GPA/MPA patients (0.008), with short disease duration (0.001), lower IgG levels at baseline (0.008), higher prednisone equivalent (PDE) cumulative dosage per year (0.006) and higher daily PDE dosage after RTX (0.001) (Table 1). After RTX, all patients had complete B-cells depletion.
At univariate analysis, IgG<6 g/L was associated with GPA/MPA diagnosis (0.006, OR 6 [1.5–24.2]), disease duration (<0.001, OR 0.2 [0.1–0.9]), RTX 375 mg/m^2 weekly protocol (p=0.017, OR 4.1 [1.2–13.9]), PDE cumulative dosage per year (<0.001, OR 6.6 [1.3–33.6]), daily PDE intake >15 mg/day after RTX (<0.001, OR 12.7 [3.1–52.5]) and IgG levels before RTX (<0.001, OR 18 [1.8–178]).
At multivariate analysis, daily PDE intake after RTX (>15 mg/day) and GPA/MPA diagnosis resulted independent predictive factors for hypogammaglobulinaemia (p=0.03, OR 9.5, [2.2–41.7] and p=0.43, OR 4.7, [1.1–21.5]).
Patients affected with GPA/MPA were compared to CTD, as reported in Table 2. GPA/MPA patients at infusion were older (0.002), presented shorter disease duration (0.001), lower IgG levels at baseline (<0.001) despite lower rate of nephrotic syndrome (0.003). Moreover they were treated more frequently with Azathioprine (0.007), RTX 375 mg/m^2 weekly protocol (<0.001) and higher PDE cumulative and daily dosage (<0.001, 0.01 respectively).
Only 5 patients (5.2%) experienced severe infections within 12 months, more frequently in IgG<6 g/L patients (0.007).



Conclusions: In autoimmune rheumatic diseases, diagnosis of GPA/MPA and glucocorticoid therapy resulted independent predictors of hypogammagobulinaemia after RTX treatment. Despite low IgG levels were associated with higher infections risk, rare severe infectious events were observed.

Disclosure of Interest: None declared
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FRI0309 CARDIOVASCULAR EVENTS IN ANCA-ASSOCIATED VASCULITIS: A META-ANALYSIS OF OBSERVATIONAL STUDIES

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Background: Several chronic inflammatory diseases are associated with cardiovascular disease, but the cardiovascular risk in ANCA-associated vasculitis is poorly quantified.
Objectives: The aim of the present study is to review the evidence for the increased cardiovascular risk in patients with ANCA-associated vasculitis.
Methods: A comprehensive systematic review was conducted in accordance with guidelines of preferred reporting items for systematic reviews and meta-analyses (PRISMA). The databases PubMed, Embase.com and the Cochrane Library (Wiley) were searched for original observational studies reporting an estimate of the association between ANCA-associated vasculitis and cardiovascular events, including ischemic heart disease, cerebrovascular accidents and/or peripheral arterial disease. The quality of the included studies was assessed with the Newcastle–Ottawa Scale. Summary estimates were derived with a random-effects model and reported as relative risks.
Results: 1375 studies were identified and 7 studies were included comprising 14098 ANCA-associated vasculitis patients versus general population controls in 6 studies and chronic kidney disease patients in 1 study. ANCA-associated vasculitis carried a relative risk of 1.65 (95% confidence interval, 1.23–2.22) for all cardiovascular events, 1.60 (1.39–1.84) for ischemic heart disease and 1.20 (0.98–1.48) for cerebrovascular accidents. We did not find studies that addressed the risk for peripheral arterial disease separately. No heterogeneity was seen in the estimates.
Conclusions: This meta-analysis of observational studies supports an increase in cardiovascular risk of about 65% in patients with ANCA-associated vasculitis, similar to that found in other chronic inflammatory diseases. Hence, there is a clear need for active cardiovascular risk management in patients with ANCA-associated vasculitis.
Disclosure of Interest: None declared
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FRI0310 LONG-TERM MORTALITY AND COMPLICATIONS IN YOUNG AND ELDERLY PATIENTS WITH ANCA-ASSOCIATED VASCULITIS

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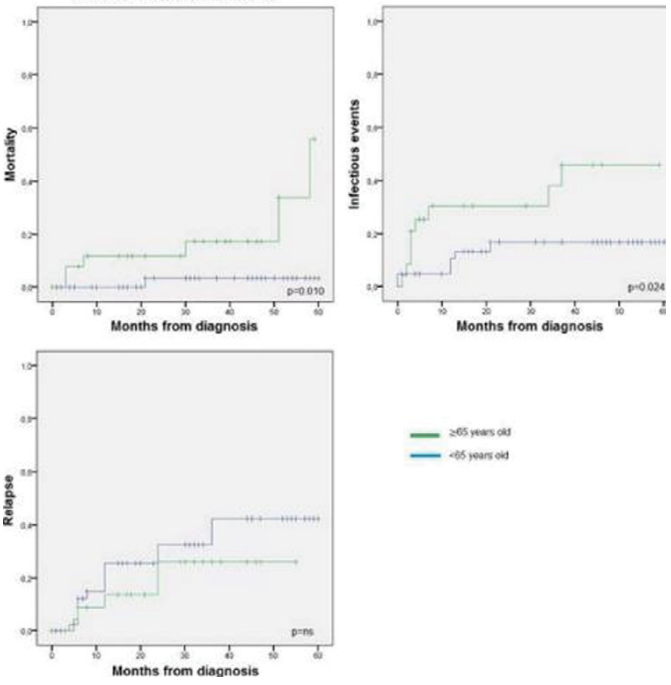
Background: Advancing age is a risk factor for complications and mortality in anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV).[1,2]
Objectives: To analyze differences in infectious, metabolic and cardiovascular complications, renal function, and mortality in patients diagnosed with AAV before or after 65 years of age, and followed for up to 5 years.
Methods: We retrospectively collected long-term clinical and laboratory data of AAV patients of two referral centers in Northern Italy from 2000, and grouped patients in young (YP, <65 years old) and elderly (EP, ≥65 years old).
Results: Of the 114 patients included, 83 had a follow-up of at least 2 years (58 YP vs 25 EP). Median follow-up was 55 [32–100] months in YP and 44 [18–59] months in EP ($p<0.013$). 86.1% (68 patients) and 62.9% (22 patients) were diagnosed with GPA in YP and EP subsets, respectively. At baseline, YP and EP patients were similar in terms of BVAS/WG score, glomerulonephritis and alveolar hemorrhage, whereas creatinine levels (1.1 mg/dL [0.8–2.3] vs 1.82 mg/dL [0.98–3.5], p=0.044), renal insufficiency rate (44.7% vs 67.6%, p=0.026) and ANCA pattern (PR3 67.5% vs 26.5%, MPO 19.5% vs 59.8%; $p<0.001$ for both comparisons) were different in YR and ER, respectively. No significant difference in induction and maintenance regimens was found in the two groups, nor in clinical remission rate after induction treatment (all $p>0.05$).
At 2 year, creatinine levels (YP 1.0 mg/dL [0.85–1.31], EP 1.2 mg/dL [1.1–2.2]) and renal insufficiency rate decreased within each group ($p<0.05$). End-stage renal disease, hypertension rate, cardiac or cerebral ischemic attack rate, diabetes, solid or hematological cancer rate and mean vasculitis damage index were not statistically different in the two groups, whereas heart failure was more represented in EP (0.0% vs 8.3%, p=0.027).
Within the first 5 years of follow-up, severe infection (requiring hospitalization) and mortality rates were significantly higher in EP group when compared with YP group (p=0.024 and p=0.010 by Kaplan-Meier analysis, respectively, Figure 1), mirrored by a higher annual severe infection rate (p=0.041; 0.22±0.69 versus 0.05±0.17) and annual mortality rate (p=0.001; 0.33±1.02 versus 0.01±0.08) in EP group. Relapse rate was similar in YP and EP within 5 years (Figure 1). Lymphopenia rate (at least 1 event, $<1000x10^9$/L) was significantly higher in EP only at 6 month ($p<0.05$), whereas severe lymphopenia ($<500x10^9$/L), leukopenia

Figure 1. Kaplan-Meier curves of mortality, infectious events and relapse within 5 years of follow-up in our cohort of patients with AAV.



($<4000x10^9$/L) or hypogammaglobinemia (Ig<5g/L) rates were similar in both groups during the follow-up. Persistent lymphopenia (≥12months, $<1000x10^9$/L) was detected in 3 patients after cyclophosphamide treatment (2 YP and 1 EP). Only relapse before 2 years of follow-up was associated with infections in YP ($p<0.001$, OR 4.0 [CI 95%, 1.2–13.3]), but not in EP.
Conclusions: Heart failure is more frequent in older patients, which have higher infection and mortality rates. Transient lymphopenia is significantly higher in EP after induction treatment, but is not associated with their increase in infectious events. Despite a similar incidence of relapse in YP and EP, relapsing disease associates with infectious events in YP, but not in EP.
References:
[1] Flossmann O et al. Ann Rheum Dis. 2011 Mar;70(3):488–94.
[2] Timlin H et al. Semin Arthritis Rheum. 2015 Aug;45(1):67–9.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.5595

FRI0311 ENDOVASCULAR INTERVENTION VERSUS SURGERY IN PATIENTS WITH TAKAYASU ARTERITIS: A META-ANALYSIS

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Background: Although medical treatment has advanced, surgical treatment is needed to control the progression and symptoms of Takayau arteritis (TA). Endovascular intervention or surgical revascularization is performed; however, there are few comparative studies of these methods.
Objectives: There are many studies about surgery and endovascular intervention; however, it is still unclear which treatment has better a benefit/risk ratio. Because neither meta-analysis nor large-scale studies are available for surgical treatment of TA, we conducted a meta-analysis to examine the outcome of surgical treatment.
Methods: A meta-analysis comparing endovascular intervention and surgery outcomes was performed using the MEDLINE and Embase databases.
Results: A total of 14 studies of 598 patients and 1,049 lesions were included. Endovascular intervention was performed in 418 lesions and surgery in 631 lesions. Restenosis was more common in endovascular intervention than in surgery (odds ratio [OR] =2.74, 95% confidence interval [CI] =1.75–4.27, $p<0.00001$). Other complications, including stroke, did not differ between endovascular intervention and surgery (OR =0.75, 95% CI =0.49–1.15, $p=0.19$). There was no difference in mortality between the two groups (OR =1.11, 95% CI =0.50–2.46, $p=0.81$).

Table 1. Outcomes of endovascular intervetion compared to sugery in patients with Takayasu artheritis

	Test of association			Test of heterogeneity		
	OR	95% CI	P-value	Model	P-value	I^2(%)
Restenosis	2.74	1.75–4.27	<0.00001	R	0.05	41
Other complications	0.75	0.49–1.15	0.19	F	0.27	18
Stroke	0.5	0.17–1.50	0.22	F	0.98	0
Death	1.11	0.50–2.46	0.81	F	0.67	0

Conclusions: This meta-analysis showed the superiority of surgical revascularization over endovascular intervention.