Table 1. Evolution of the aortic diameter (in mm) and volume (in cm³) per year in patients with (PET positive) and without (PET negative) vascular FDG uptake ≥2

FDG uptake ≥2 in any large vessel	Regression coefficient (95% CI)		p-value
	PET negative	PET positive	
Volume of thoracic aorta	2.40 (-0.40 – 5.21)	6.80 (5.09 – 8.53)	0.008
Volume of abdominal aorta	0.28 (-0.48 – 1.04)	0.12 (-0.33 – 0.57)	0.72
Diameter of thoracic aorta			
◦ Ascending aorta	0.10 (-0.10 – 0.30)	0.41 (0.29 – 0.53)	0.009
◦ Aortic arch	0.21 (0.05 – 0.37)	0.35 (0.25 – 0.45)	0.14
◦ Descending aorta	0.11 (-0.06 – 0.27)	0.34 (0.24 – 0.44)	0.01
Diameter of abdominal aorta			
◦ Suprarenal aorta	0.07 (-0.04 – 0.17)	0.11 (0.04 – 0.17)	0.51
◦ Juxtarenal aorta	0.14 (0.03 – 0.25)	0.14 (0.07 – 0.21)	0.98
◦ Infrarenal aorta	0.15 (0.07 – 0.23)	0.08 (0.03 – 0.12)	0.11
FDG uptake ≥2 in thoracic aorta	**Regression coefficient (95% CI)**		**p-value**
	PET negative	**PET positive**	
Volume of thoracic aorta	3.13 (0.86 – 5.43)	7.32 (5.44 – 9.22)	0.005
Diameter of thoracic aorta			
◦ Ascending aorta	0.15 (-0.02 – 0.31)	0.45 (0.31 – 0.58)	0.005
◦ Aortic arch	0.22 (0.09 – 0.35)	0.37 (0.27 – 0.48)	0.07
◦ Descending aorta	0.18 (0.05 – 0.32)	0.35 (0.23 – 0.46)	0.06
FDG uptake ≥2 in abdominal aorta	**Regression coefficient (95% CI)**		**p-value**
	PET negative	**PET positive**	
Volume of abdominal aorta	0.08 (-0.45 – 0.61)	0.23 (-0.33 – 0.78)	0.69
Diameter of abdominal aorta			
◦ Suprarenal aorta	0.07 (-0.00 – 0.14)	0.12 (0.05 – 0.20)	0.32
◦ Juxtarenal aorta	0.13 (0.05 – 0.20)	0.15 (0.07 – 0.23)	0.70
◦ Infrarenal aorta	0.12 (0.07 – 0.18)	0.06 (0.00 – 0.12)	0.12

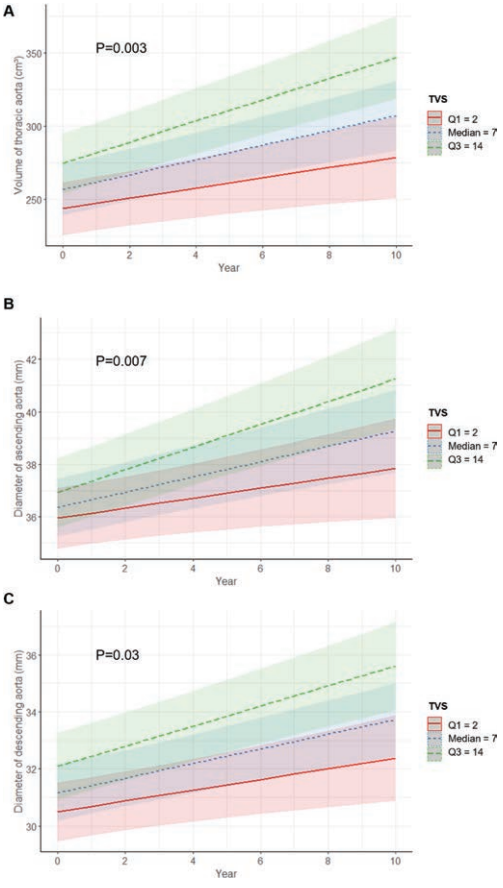


Figure 1. Association between TVS and (A) volume of thoracic aorta, (B) diameter of ascending aorta and (C) diameter of descending aorta

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POS0219

COMPARISON OF METHOTREXATE AND AZATHIOPRINE AS THE FIRST STEROID-SPARING IMMUNOSUPPRESSIVE AGENT IN PATIENTS WITH TAKAYASU'S ARTERITIS

Keywords: Vasculitis, Disease-modifying Drugs (DMARDs)

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Background: Conventional disease-modifying anti-rheumatic drugs (cDMARDs) are recommended in addition to glucocorticoids (GC) for all active Takayasu's arteritis (TAK) patients as the first-line therapy.However, there is limited data comparing cDMARDs as the first-line immunosuppressive (IS) treatment.
Objectives: In this study, we aimed to compare the outcomes of methotrexate (MTX) and azathioprine (AZA), which were used most frequently as the first-line cDMARDs in TAK patients.
Methods: TAK patients who received cDMARDs in addition to GCs as the initial therapy were included in this multicenter retrospective cohort study. Clinical, laboratory and imaging data of the patients were assessed. In addition, a match analysis (cc match) using variables 'age', 'gender' and 'diffuse aortic involvement' was performed between patients who received MTX or AZA as first-line cDMARD treatment.
Results: We included 301 (F/M: 260/41, mean age: 42.2±13.3) patients from 10 centres in the study. As the first-line cDMARD, 204 (67.8%) patients received MTX and 77 (25.6%) patients received AZA. First cDMARD was cyclophosphamide in 17 (5.6%), leflunomide in 2 (0.5%) and mycophenolate mofetil in one patient. The remission, relapse and radiographic progression rates were similar between patients who received MTX and AZA as first-line cDMARDs. Vascular surgery rate was higher in the AZA (23% vs. 9%, p=0.001), whereas the frequency of patients receiving ≤5 mg/day GCs at the end of the follow-up was higher in the MTX group (76 vs 62%, p=0.034). Similarly, the rate of vascular surgery was higher and the GC dose reduction rate (≤5 mg) was lower in AZA group in match analysis. Drug survival was similar between MTX and AZA groups (median 48 months, MTX vs AZA: 32% vs 42%, p=0.34). IS therapy was discontinued in 18 (11 MTX, 7 AZA) patients during the follow-up period due to remission. In the IS discontinuation group 2 patients had a relapse at 2 and 6 months, while 16 patients were still on remission at the end of mean 69.4 (±50.9) months of follow-up.
Conclusion: Remission, relapse, radiographic progression and drug survival rates of azathioprine and methotrexate were similar in Takayasu's arteritis patients having the first-line of therapy. The rate of vascular surgery was higher and the rate of steroid dose reduction was lower with azathioprine compared to methotrexate at the end of the follow-up.

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Table 1. Demographic and clinical characteristics of patients with Takayasu's arteritis

	Total group (n=301)	First-line methotrexate (n=204)	First-line azathioprine (n=77)	p
Age, mean±SD	42,2±13,3	43,5±13,3	40,4±13,2	0,08
Gender, female, n(%)	260 (86)	184 (90)	63 (82)	0,055
Duration of first cDMARD, months	35 (3-336)	35,5 (3-312)	35 (3-336)	0,64
Remission with first cDMARD, n(%)	193/296 (65)	138/199 (69)	50/77 (65)	0,48
Disease activity (baseline)				
PGA, active, n (%)	283/297 (95)	191/201 (95)	74/77 (96)	0,70
Kerr, active, n (%)	270/289 (93)	181/195 (93)	70/75 (93)	0,53
ITAS 2010	9 (2-20)	9 (0-19)	10 (3-21)	0,61
Disease activity (12th month)				
PGA, active, n (%)	53/118 (45)	33/76 (43)	18/39 (46)	0,78
Kerr, active, n (%)	32/120 (27)	24/79 (30)	6/38 (16)	0,26
ITAS 2010	1 (0-11)	1 (0-9)	1 (0-11)	0,48
Relapse rate, n(%)	95/192 (50)	68/138 (49)	24/49 (49)	0,97
Vascular surgery rate with first cDMARD, n(%)	40/291 (14)	17/196 (9)	18/77 (23)	**0,001**
GC dose reduction (≤5 mg) or discontinuation with first cDMARD, n(%)	153/220 (70)	110/145 (76)	100/65 (62)	**0,034**
Radiographic progression, n(%)	75/142 (53)	48/98 (49)	22/39 (56)	0,43
CRP, baseline, mg/L	13 (0,4-235)	15,3 (0,5-280)	19,0 (0,4-145)	0,82
CRP, 12th month, mg/L	3 (0,8-130)	4,4 (0,2-200)	3,7(0,4-83)	0,90

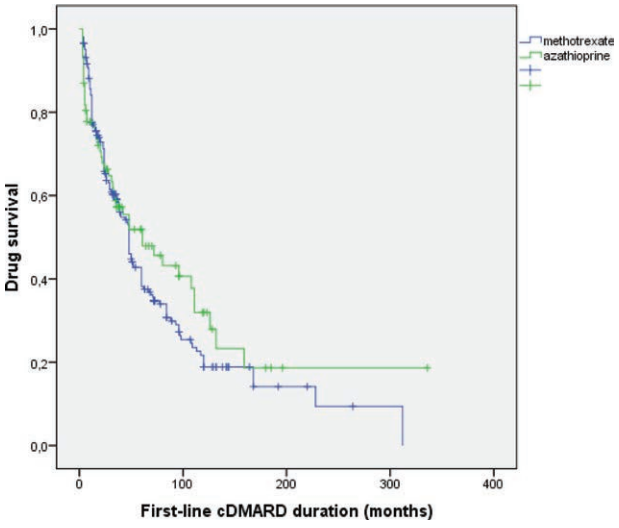


Figure 1. Drug survival for methotrexate and azathioprine treatments in TAK patients as first-line cDMARD

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POS0220

THE BIOBEHÇET'S TRIAL: OPTIMAL UTILISATION OF BIOLOGIC DRUGS IN BEHÇET'S DISEASE: A RANDOMISED CONTROLLED TRIAL OF INFLIXIMAB VS ALPHA INTERFERON, WITH GENOTYPING AND METABOLOMIC PROFILING, TOWARDS A STRATIFIED MEDICINES APPROACH TO TREATMENT

Keywords: Behcet's disease, Randomized control trial, Biomarkers

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Background: High-quality randomised trials and predictive biomarkers are required to target therapy optimally in Behçet's syndrome (BS) - especially with high cost biologics.
Objectives: Utilise a Bayesian approach to design and undertake a high quality randomised, head to head, controlled clinical trial of the two most widely used biologics for BS at the time of design of the trial: the anti-TNF infliximab and interferon alpha 2a Roferon and undertake an exploratory analysis of potential predictive biomarkers.
Methods: A pragmatic, prospective, standard of care, single masked, randomised, two arm, parallel head-to-head trial, with the exploratory evaluation of potential biomarkers IFNL3 and IFNL4 SNPs for Roferon, and urinary metabolomics as biomarkers for response to infliximab. Patients with active BS (utilising ISG 1990 classification criteria), with inadequate response to or intolerance of first line treatment were randomised to infliximab (5mg/kg ivi every 6-8 weeks depending on organ involvement) or Roferon (subcutaneous injection: standard tapering dose). Primary outcome: modified Behçet's disease activity index (mBDAI) at 12 weeks of therapy. Secondary outcomes: (a) mBDAI at 24 weeks, (b) significant improvement at 12 and 24 weeks in vitreous haze and best corrected visual acuity change; oral ulcer severity score; number of genital ulcers; arthritis pain; adverse events; reduction in dose of glucocorticoid; Quality of Life and Physician's Global Assessment (disease activity). Sample size was calculated utilising a Bayesian analysis of covariance model (80% credible interval): initial sample size 45/arm (Bayesian power 90%). With anticipated 10% drop-out, recruitment of 100 patients was initially planned. Following recommendations to reduce the overall length of the trial, this was revised down to 80 patients (36/arm allowing for 10% drop out): 80% equi-tailed credibility interval, Bayesian power 88%. A stratified block randomisation scheme was employed, based on randomly permuted blocks, with random block sizes of 2 and 4. Patient follow up was undertaken at weeks 12 and 24, following standard of care.
Results: In this first prospective head-to-head randomised controlled clinic trial of two biologic drugs in BS, infliximab and Roferon were equally effective, with a trend for minor benefit favouring infliximab for tolerability and treatment persistence. Genetic data suggested a potential association between patient outcome and carriage of either rs4803221 or rs7248668 variants in IFNL3 (IL-28B) gene locus in the Roferon-treated arm. However, statistical significance was lost when correcting for multiple testing. Metabolomic analysis identified potential markers for response to treatment with infliximab.
Conclusion: We report an equivalent efficacy between infliximab and Roferon in refractory active BS, better tolerability of Roferon compared to that anticipated, together with the potential for a novel metabolomic biomarkers identifying a clinical response to infliximab.
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POS0221

CLINICAL, LABORATORY AND ULTRASONOGRAPHIC FINDINGS AT BASELINE CAN PREDICT THE LONG-TERM OUTCOME OF POLYMYALGIA RHEUMATICA

Keywords: Inflammatory arthritides, Ultrasound, Vasculitis

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Background: No definite clinical, laboratory or imaging finding has been identified to predict prognosis and different clinical course of PMR, nor the risk of further relapses.
Objectives: Primary endpoint was to assess the rate of PMR patients who, during the follow-up, undergo a diagnosis of GCA and arthritis, as well as to assess which clinical, laboratory and US findings are associated to a diagnostic shift and predict the long-term evolution of PMR. Secondary endpoint was to assess the optimal use of US in PMR.

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