Objectives: To analyze whether benefit in SF-36 MCS was maintained in patients originally assigned to TCZ compared with those originally assigned to placebo (PBO) plus a 26- or 52-week prednisone taper among patients who achieved clinical remission at week 52 and maintained treatment-free clinical remission in the 2-year, long-term extension of GiACTA.

Methods: At the end of part 1, patients entered open-label part 2, in which GCA therapy (including initiation/termination of open-label TCZ and/or GCs) was given at the investigator's discretion according to disease status. Change from baseline in SF-36 MCS score was compared for combined original TCZ (n = 33) and PBO (n = 17) patients who achieved clinical remission at week 52 and maintained treatment-free (no TCZ or GCs) clinical remission in part 2 using a repeated-measures model. The minimal clinically important difference (MCID) for SF-36 MCS is >2.5.²

Results: During treatment, SF-36 MCS scores in all 50 patients who maintained treatment-free clinical remission in part 2 had diverged between the TCZ and PBO groups as early as 36 weeks after baseline, with greater improvements evident in the TCZ group (Figure). The difference in least square means (LSM) change between TCZ and PBO was statistically significant at week 52 ($p = 0.016$) and maintained at weeks 100 ($p = 0.023$) and 156 ($p = 0.002$). The LSM difference (95% CI) between TCZ and PBO at weeks 52, 100, and 156 was 5.6 (1.1-10.2), 6.5 (0.9-12.1), and 7.4 (2.9-11.9), respectively, exceeding the MCID.

Conclusion: Among patients who maintained treatment-free clinical remission during part 2 of GiACTA, those originally assigned to receive TCZ plus a prednisone taper during part 1 maintained statistically significant and clinically meaningful improvements in SF-36 MCS up to week 156 compared with those originally assigned to receive PBO plus a prednisone taper in part 1. This was true even though neither of the patient groups received TCZ or GC treatment after they achieved clinical remission at week 52.

References:

- [1] Strand V et al. *Arthritis Res Ther* 2019;21:64.
- [2] Lubeck DP. *Pharmacoeconomics* 2004;22:27-38.

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SAT0276 CARDIAC MAGNETIC RESONANCE IMAGING IN PATIENTS WITH BEHCET'S DISEASE: A PILOT STUDY

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Background: Behçet's disease is a multisystemic vasculitis characterized by mucocutaneous, ocular, arthritic, and vascular manifestations.[1] However, the incidence and nature of cardiac involvement in Behçet's disease have not been clearly documented yet.

Objectives: This study aimed to assess the cardiac involvement in patients with Behçet's disease using cardiac magnetic resonance imaging (MRI).

Methods: This cross-sectional descriptive study was carried out on thirty consecutive patients with Behçet's disease (21 males, 9 females) with mean age 32.3±8.9 years and with no evidence of cardiac disease. They underwent cardiac MRI to determine morphological and functional changes of the heart and to detect areas of hyperenhancement after IV administration of gadolinium.

Results: At least one abnormality on cardiac MRI was observed in 20/30 patients (66.67%). Myocardial oedema was observed in 3 patients (10.0%) and late gadolinium enhancement in only 1 patient (3.3%). Pericardial effusion was found in 3 patients (10.0%), global hypokinesia in 6 patients (20.0%) and intra-cardiac thrombosis in only 1 patient (3.3%). Pulmonary artery was dilated in 4 patients (13.3%). Left ventricular and right ventricular end diastolic volume were altered in 4 patients (13.3%) and 7 patients (23.3%) respectively. Also, left ventricular and right ventricular end systolic volume were abnormal in 7 patients (23.3%) and 5 patients (16.7%) respectively. Moreover, there was aortic valve regurgitation in 2 patients (6.7%), tricuspid valve regurgitation in 9 patients (30%), and mitral valve regurgitation in 9 patients (30%). Dilated left main coronary artery in 2 patients (6.7%) and arrhythmogenic right ventricular dysplasia in only one patient (3.3%).

Conclusion: Behçet's disease may cause cardiac abnormalities without clinical manifestations and cardiac MRI may represent a tool for early detection of these subtle abnormalities.

References:

- [1] Geri, G., et al., Spectrum of cardiac lesions in Behçet disease: a series of 52 patients and review of the literature. *Medicine*, 2012. **91**(1): p. 25-34.

Figure 1. Cardiac MRI in 32 year-old female patient with Behçet's disease for 3 years.

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SAT0277 HEAD AND NECK INVOLVEMENT OF IGA VASCULITIS: A CASE-CONTROL STUDY

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Background: IgA vasculitis (IgAV) is an immune-complex mediated, small-vessel vasculitis which predominantly involves the skin on the lower extremities. Head and neck involvement is rarely reported.

Objectives: To describe the presentation and outcome of a series of patients with head and/or neck involvement in comparison to patients with cutaneous findings isolated to the lower extremities.

Table 1. Baseline characteristics of patients with head and neck involvement of IgA-vasculitis compared to those with lower extremity only

Characteristic, n (%)	H/N-IgAV (N=13)	LE-IgAV (N=26)	p-value
Age at diagnosis, years*	38 (24)	38 (24)	1.0
Male	7 (54%)	16 (62%)	0.65
Caucasian	13 (100%)	24 (96%)	0.47
Length of follow-up, years*	2.6 (3.5)	1.3 (2.0)	0.28
Body mass index, kg/m ² *	32 (17)	28 (10)	0.72
Hypertension	2 (15%)	8 (31%)	0.30
Infection within 4 weeks	7 (54%)	11 (42%)	0.50
Antibiotic exposure within 4 weeks	4 (31%)	6 (24%)	0.65
Abdominal ischemic symptoms	2 (15%)	3 (12%)	0.74
Palpable purpura	13 (100%)	26 (100%)	---
Skin ulceration	3 (23%)	0 (0%)	0.01
Any renal involvement	5 (38%)	19 (73%)	0.04
Microscopic hematuria	4 (31%)	17 (65%)	0.04
Proteinuria	4 (31%)	15 (58%)	0.11
C-reactive protein, mg/L*	28 (25)	22 (22)	0.61
Erythrocyte sedimentation rate, mm/hr*	20 (21)	27 (25)	0.80
eGFR (ml/min/1.73m ²)*	87 (41)	95 (42)	0.88

*mean (±standard deviation); H/N, head and/or neck; LE, lower extremity only

Figure 1. A) H/N involvement in IgAV (perioral, nasal, cheeks and neck). B) Severe PP in lower extremities with bullous, ulcerations and skin necrosis.

Methods: Patients with biopsy-proven IgAV from January 1, 1997 through December 31, 2016 were retrospectively identified through direct medical chart review. IgAV was diagnosed in accordance with the American College of Rheumatology (ACR) and the European League Against Rheumatism/ Paediatric Rheumatology European Society/Paediatric Rheumatology International Trials Organisation (EULAR/PRINTO/PRES) criteria. Among this cohort, patients with documented clinical, photographic, or histologic descriptions of vasculitic skin lesions affecting the head or neck were compiled. Each patient with head/neck (H/N) involvement of IgAV (case) was matched to two age- and sex-matched control patients with IgAV for which the cutaneous features were isolated to the waistline or distal. Baseline characteristics, laboratory parameters, treatments and outcome were collected by a physician abstractor.

Results: Thirteen patients with H/N-IgAV involvement were identified. Baseline characteristics of the cases and controls are demonstrated in Table 1. H/N involvement included facial (cheeks, forehead) [n=6], perioral/oral/lip [n=6], auricular [n=2], nasal [n=2], and neck [n=1]. All patients in both groups had evidence of purpuric skin lesions. Patients with H/N-IgAV involvement more frequently had evidence of skin ulcerations (23% vs. 0%; p=0.01) [Figure 1]. Overall baseline renal involvement and microscopic hematuria were less commonly observed in patients with H/N-IgAV. Among H/N-IgAV cases, at last follow-up all had resolution of H/N lesions but 3 of 13 had persistent skin lesions on the lower extremities despite ongoing treatment. Long-term outcome between cases and controls did not identify any significant differences in the development of end-stage renal disease, time to resolution of hematuria or proteinuria, time to complete IgAV response, or time to first IgAV relapse.

Conclusion: This study reports the largest series of patients with head/neck involvement of IgA, a rarely reported entity. In this cohort, patients with H/N-IgAV had less frequent renal involvement compared to IgAV patients with lower extremity only skin lesions. Clinicians should be aware of atypical locations of

IgAV involvement. Additional research is needed to further understand this clinical subset.

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SAT0278 LOW-DOSE IL-2 RESTORES TREG-MEDIATED IMMUNE TOLERANCE IN PATIENTS WITH ANCA-ASSOCIATED VASCULITIS

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Background: Antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV) is a group of autoimmune disease that can cause systemic organ damage, including granulomatosis with polyangiitis(GPA), microscopic polyangiitis (MPA), and eosinophilic granulomatosis with polyangiitis(EGPA)[1]. Several observations have showed that the breakdown of immune tolerance was involved in the pathogenesis of AAV [2], furthermore, a single, open and clinical trial demonstrates that IL-2 can be used to treat patients with GPA [3]. But there is still a lack of understanding of the relationship between Th17 / Treg and AAV and evidence for the therapeutic effect of IL-2 on AAV, which needs further exploration.

Objectives: We first measured the absolute number of CD4+T subsets in peripheral blood of patients to explore the pathogenesis of AAV, and then investigated the effects of short-term and low-dose recombinant human IL-2 (rhIL-2) on CD4+T subsets of patients to analyze the regulatory effect of IL-2 on AAV.

Methods: 49 patients with AAV, hospitalized at the Second Hospital of Shanxi Medical University from the May 2016 to the November 2019 were enrolled, including 36 patients who were only received conventional glucocorticoids and DMARDs, and other 13 patients who were not only received these treatments but were also injected subcutaneously rhIL-2(50WU/day for a 5-day course). 31 age and gender-matched healthy adults were selected as controls. The absolute number of Th17 and Treg cells in peripheral blood of health controls and the patients before and after treatment was detected by flow cytometry.

Results: There was significant decreased level of Treg cells in the patients with AAV compared with healthy controls (P<0.001) leading to a higher Th17/Treg ratio in the patients with AAV, but there was no statistically significant in the absolute number of Th17 cells between the patients and healthy controls. After the treatment of short-term and low-dose IL-2, there was a significant increase in the absolute number of Treg cells (P<0.01) leading to a decrease in the ratio of Th17 and Treg (p<0.05).The absolute number of Th17 had a trend towards higher values but was not statistical significance.

Conclusion: The difference of Treg cells between the patients and healthy controls suggested that the decreased number of Treg cells failed to control autoimmune inflammatory response contributing to the pathogenesis of AAV. After the treatment of short-term and low-dose rhIL-2, there was a more significant increase in the absolute number of Treg cells showing that IL-2 could selectively stimulate the growth of Treg cells and restore the Treg-mediated immune tolerance in patients with AAV to achieve disease remission.

Figure 1: Characteristics of the absolute number of Th17 cells and Treg cells in peripheral blood of health controls (n=31) and the patients with AAV (n=49). The absolute number of Th17 cells and Treg cells was detected by flow cytometry. There was significant decreased level of Treg cells in the patients with AAV compared with healthy controls leading to a higher Th17/Treg ratio in the patients with AAV, but there was no statistically significant in the absolute number of Th17 cells between the patients and healthy controls. Statistical analyses were performed by the Mann-Whitney U test. *P<0.05, **P<0.01, ***P<0.001.