Table 1. Investigation outcome summary

Total number of patients who underwent TAB +/- or USS TA for GCA			
187 - 13 patients rejected			
N = 174			
TAB = 111			
USS = 63			
Of these 15 patients had both USS & TAB			
Positive TAB = 31 (28%)	Negative TAB = 80 (72%)	Positive USS = 24 (38%)	Negative USS = 39 (62%)

Conclusion: Our study, highlights that a probability score for GCA derived from a large multi-centre cohort of patients who were biopsy positive, predicts ultrasound positivity with similar accuracy. Our work reveals that scoring systems are not infallible but can be helpful in guiding clinical decision making

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AB0489 BETA 2 MICROGLOBULIN AS A PROGNOSTIC FACTOR IN CRYOGLOBULINEMIA NON ASSOCIATED WITH HEPATOTROPIC VIRUSES

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Background: Cryoglobulinemia (CG) is a rare phenomenon related to haematological disorders, infections and autoimmune diseases. Age and renal involvement are known prognostic markers.

Objectives: To describe the differential clinical features and the prognostic factors in a cohort of patients diagnosed with CG non-associated with hepatotropic viruses.

Methods: A descriptive, retrospective study of a cohort comprised of 252 cryoglobulin positive samples, obtained from the immunology laboratory database of a tertiary hospital attending 450,000 people over 1 year. 186 patients with CG positive samples were included, 87 of which were not associated with neither hepatitis B nor C virus. Demographic, clinical, serological and

Table 1. Clinical, epidemiological and serical characteristics of patients with CG

Sex, female / male, n (%)	65/22 (74.7/25.3)
Age at diagnosis, years ± SD	60 ± 16
CG subtype, n (%)	
- Type 1, n (%)	27 (30)
- Mixed, n (%)	61 (70)
ASSOCIATED DISEASES	
- pSS, n (%)	37 (42.5)
- LES, n (%)	9 (10.3)
- SSC, n (%)	7 (8.05)
CLINICAL CHARACTERISTICS	
- Skin, n (%)	30 (34.5)
- Purpura, n (%)	14 (16)
- Ulcers, n (%)	5 (5.7)
- Acral ischemia, n (%)	2 (2.3)
- Acrocyanosis by cold, n (%)	7 (8)
- Raynaud, n (%)	19 (21.8)
- Peripheral Neuropathy, n (%)	17 (19.5)
- Non-erosive arthritis, n (%)	29 (33.3)
- Glomerulonephritis, n (%)	10 (11.5)
LABORATORY	
- β2M + (>1.8mg/L) mean	3.9
- RCP (mg/L) p50	3.7
- ESR (mm/hour) p50	28
- RF + (>20 UI/mL) p50	124
- Anti Ro52 + /Anti Ro60 + n, (%)	42 (48.3)
- Low C3 n, (%)	48 (55.1)
- Low C4 n, (%)	36 (41.4)

pathological data were collected. Nonparametric variables were compared using a Wilcoxon test.

Results: Out of 186 reviewed patients, 87 (46.7%) are included in this study. The mean age at CG diagnosis was 60 (± 16) years. Mixed CG was the predominant subtype, detected in 66 (75.9%) patients, 10 of which (11.5%) were associated with glomerulonephritis (GN) with compatible biopsy, 17 (19.5%) with peripheral neuropathy (PN), 29 (33.3%) with non-erosive arthritis and 10 (11.5%) with leukocytoclastic vasculitis confirmed by skin biopsy. The clinical, epidemiological and serological characteristics of the sample are summarized in Table 1.

In the comparative analysis of patients with CG and Beta 2 microglobulin (β2M), CG and rheumatoid factor (RF), those with high β2M (>1.8 mg / L) presented significantly more GN (p0.016) and PN (p0.013). However, the association of RF with either GN (p0.948) or PN (p0.645) was not significant. Also, high β2M was significantly related to complement consumption of C4 (p: 0.015) but not of C3 (p: 0.063). In the 30 (34.5%) patients with skin manifestations, high β2M showed no statistically significant association. The main systemic autoimmune diseases associated were primary Sjögren's Syndrome (pSS) 37 (42.5%), Systemic Lupus Erythematosus (SLE) 9 (10.3%) and Systemic Sclerosis (SSc) 7 (8.05%).

Conclusion: A direct association between presence of elevated levels of β2M and the existence of progression to glomerulonephritis and peripheral neuropathy is found in our cohort. No correlation is found between the presence of CG and other serological markers of autoimmunity except low C4. CG with elevated β2M does not associate with greater skin involvement or arthritis.

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AB0490 CIRCULATING REGULATORY T CELLS WERE ABSOLUTELY DECREASED IN TAKAYASU'S ARTERITIS PATIENTS

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Background: Takayasu arteritis (TA) refers to chronic progressive non-specific inflammation that involves the aorta and its main branches, causing stenosis and occlusion of arteries in different parts, and ischemic manifestations in the corresponding parts. A variety of immune dysfunctions are involved in the occurrence and development of TA⁽¹⁾. Recent studies have shown that Th17/Treg imbalance plays an important role in the pathogenesis of Takayasu's arteritis, in which T help 17 cells (Th17) cells are up-regulated in TA patients⁽²⁾. Th17 cells are closely related to Treg cells during differentiation. There are few studies on the expression level of CD4+CD25+FOXP3+T lymphocyte (Treg) cells. This study aims to study the clinical significance of Treg cell expression in peripheral blood of patients with Takayasu's arteritis.

Objectives: To analyze the levels of circulating lymphocyte subsets and serum cytokines in patients with takayasu arteritis (TA), and explore the relationship between their changes and TA disease activity.

Methods: A total of 46 TA patients and 43 gender-age-matched healthy controls were enrolled. According to the NIH standard, 30 patients were in active disease. Flow cytometry was used to detect the absolute numbers and ratios of Th1, Th2, Th17 and Treg cells in peripheral blood of all subjects. Magnetic bead-based multiplex immunoassay was used to detect cytokines and statistical analysis was performed.

Results: Compared with the healthy controls, the absolute number and proportion of peripheral Treg cells of TA patients significantly decreased while those of Th17 cells increased significantly, leading to the increased ratio of Th17 / Treg. Compared with the inactive group, the TA active group had significantly increased IL-6 and TNF-α, and there was no significant difference in the expression of Th17 cells and Treg cells.

Conclusion: In peripheral blood of TA patients, Treg cells decreased, while Th17 cells increased as compared with healthy controls, leading to an imbalance between Th17 and Treg cells. The levels of IL-6 and TNF-α were related to disease activity.

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Figure 1. Characteristics of the absolute numbers and proportions of Th1 cells, Th2 cells, Th17 cells and CD4 Treg cells in the PB of patients with TA. (A-C) The levels of Th17 cells and the ratio of Th1/Treg, Th2/Treg, Th17/Treg in PB were significantly increased in patients with TA (n=46). The absolute number and the proportion of CD4 Treg cells were significantly decreased in TA (n=46). (D-F) The absolute number and ratio of Th2 cells and Th1/Treg, Th2/Treg, Th17/Treg in PB were significantly decreased in active patients with TA (n=30). Neither the absolute number nor proportion of Th1, Th17 and Treg cells was altered significantly between active TA patients (n=30) and inactive TA patients (n=16). *P<0.05; **P<0.001. P<0.05 was considered statistically significant. TA, Takayasu arteritis; PB, peripheral blood; Tregs, regulatory T cells.

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Figure 2. Characteristics of serum concentrations of cytokine (including IL-6, IL-10, IL-17 and TNF-α) between active TA patients (n=30) and inactive TA patients (n=16). (A, D) In terms of cytokines, the concentration of IL-6 and TNF-α was significantly up-regulated (B, C) but no significant changes in IL-10, and IL-17 were found. *P<0.05; **P<0.001. P<0.05 was considered statistically significant.

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AB0491 ELEVATED COMPLEMENT 3 INDICATES DISEASE ACTIVITY IN TAKAYASU ARTERITIS

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Background: The disease activity evaluation of Takayasu arteritis (TA) is a critical issue for disease monitoring and treatment. But the previous markers such as Kerr score or ITAS 2010 are not convenient enough.

Objectives: We aim to explore novel biomarkers to assess TA disease activity. **Methods:** This cross-sectional study was based on the East China TA (ECTA) cohort. Demographic characteristics, clinical features, laboratory and imaging results were collected. Complements and their combination with other biomarkers in identifying active disease (Kerr ≥ 2) group were analyzed. Internal and external validation were employed to confirm the accuracy and stability of the results.

Results: 519 patients were enrolled, among which 406 cases (72.2%) were identified as active disease. Higher ESR, CRP, platelet, globulin, IgG, IL-6, complement 3 (C3), complement 4 (C4) and median haemolytic complement (CH50) levels were observed in the active disease group. Logistic regression analysis demonstrated that C3 levels [odds ratio (OR) (95%CI): 10.710 (1.825 – 62.835), P = 0.009] and CRP [OR (95%CI): 1.041 (1.009 – 1.073), P = 0.011] were independently associated with active disease. The cut-off of C3 to identify active TA was 1.085 g/L, with 69.9% sensitivity, 66.7% specificity. Combining the CRP (cut-off, 10.65 g/L; sensitivity, 50.7%; specificity, 82.4%) and C3, the sensitivity and specificity to identify the active disease were 85.1% and 55.0% (parallel test), and 35.4% and 94.1% (serial test), respectively. C3 could significantly improve the diagnostic ability of CRP [net reclassification index: OR (95%CI): 1.728 (1.556–1.990), P = 0.000; integrated discrimination index: OR (95%CI): 0.328 (0.224–0.431), P = 0.000]. The accuracy of the 10-fold cross validation of combining CRP with C3 was over 75%, and the accuracy of the external validation with 53 TA cases was 72.73%.

Conclusion: C3 could reflect the disease activity of TA, and combining CRP with C3 could significantly improve the disease activity evaluation in TA.

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AB0492 INTESTINAL MICROBIOTA COMPOSITION OF PATIENT'S WITH BEHCET'S DISEASE: DIFFERENCES BETWEEN EYE, MUCOCUTANEOUS AND VASCULAR INVOLVEMENT (RHEUMA-BIOTA STUDY)

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Background: Recently, it has been shown that changes in microbiota composition play a role in the etiology and pathogenesis of chronic diseases. Changes in oral and intestinal microbiota diversity and composition are suggested in Behcet disease (BD), however there are no study available about the potential gut microbiota changes among different clinical forms of BD.

Objectives: The aim of this study was to evaluate the intestinal microbiota composition of patient with BD and healthy controls, and also compare BD patients regarding to their eye, mucocutaneous and vascular involvement.

Methods: In this prospective cohort study, 27 patients diagnosed with BD and 10 aged and sex matched healthy controls were included. Patients with a body mass index > 35, who have used antibiotics or probiotics in the last 4 weeks, patients with chronic gastrointestinal or other systemic diseases, and those with acute / severe gastrointestinal symptoms requiring medical treatment were excluded from the study. For the intestinal microbiota analysis, gene amplification, library formation, sequence analysis and bioinformatic evaluation of the results were performed with 16S rRNA next generation sequencing methods with Illumina MiSeq.

Results: There was no difference between the BD group and the control group in terms of alpha (Chao-1 and Shannon) and beta (Bray-Curtis) microbiota diversity indices (p>0.05). *Actinomyces*, *Libanibacter*, *Collinsella*, *Eggerthella*, *Enetrohabdus*, *Catenibacterium* and *Enterobacter* were significantly higher in BD group compared to the