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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2022-eular.2389

POS1344

USEFULNESS OF TRADITIONAL AND NOVEL BIOMARKERS FOR EVALUATION OF ADULT-ONSET STILL'S DISEASE ACTIVITY

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Background: Adult-onset Still's disease (AOSD) is a rare systemic autoinflammatory disorder with unknown etiology. The main problem for rheumatologists is a lack of generally accepted methods for assessing AOSD activity.

Objectives: To compare the usefulness of traditional and novel biomarkers for assessing the AOSD activity

Methods: The cross-sectional study included 27 patients over the age of 18 with a relapse of AOSD who were examined at the Almazov National Medical Research Centre from 2018 to 2021. All patients fulfilled the AOSD classification criteria by Yamaguchi. Clinical manifestations were scored in a Pouchot AOSD activity score. The serum concentrations of IL-1, IL-6, IL-18, ferritin, calgranulin, procalcitonin and the level of glycosylated ferritin (GF) were examined. Standard commercial reagents were used for detection clinical analysis of blood, C-reactive protein (CRP) and aminotransferases. Statistical analysis was performed using the licensed statistical applications Statistica 10.0 for Windows (StatSoft Inc., USA), and Prisma GraphPad 8.0 (GraphPad Software, USA). Results were expressed as median (25th–75th percentile) and analysed for statistical significance using nonparametric tests. For quantitative features comparison, the Mann–Whitney U test was used. The correlation coefficient was obtained by nonparametric Spearman's rank correlation test. P values < 0.05 were considered statistically significant. Data from commercial test systems are taken as the basis for normal biomarker indicators.

Results: Clinical data were available from 27 patients with AOSD (6 male and 21 female). The median age was 41.3 [26;50]. The median Pouchot activity score was 6 [4.5;7]. The course of AOSD was monocyclic in 1 patient, polycyclic in 23, and chronic in 3. Elevated leukocyte count > 10,000/μl was detected in 17 patients (63%), 9 patients (33%) had an elevated leukocyte count > 15,000/μl. An increase in biomarkers was detected in most patients: calgranulin was increased in 24 out of 26 patients (92.3%), ferritin was increased and GF was decreased in 21 out of 25 patients (84%). Among those 25 patients, the decrease in GF was less than 20% in 13 patients (52%). IL-18 increased in 17 patients (63%), IL-6 increased in 22 patients (81.5%), and procalcitonin increased in 16 out of 26 patients (61.6%). The median of procalcitonin concentration was 0.08 [0.01; 30.1]. No increase in IL-1 beta was detected.

A correlation analysis revealed a direct relationship between the concentration of IL-18, ferritin and the Pouchot system score. An inverse relationship existed between these indicators and the level of GF (rs=0.803, p=0.001) and between calgranulin and IL-6 (rs=0.46, p=0.02). It was noted that the younger the age of the patients, the higher the concentration of IL-18 (rs=-0.449, p=0.019).

Conclusion: The most promising additional laboratory biomarkers for assessing AOSD activity are calprotectin, IL-18, and ferritin. Despite a slight increase in procalcitonin as one of the indicators of the acute phase of inflammation, it remains an effective biomarker of sepsis; however, it is recommended to focus on threshold concentrations above 0.5.

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Disclosure of Interests: Valentina Myachikova Speakers bureau: Novartis, Sobi, Evgenii Kuvardin: None declared, Kira Zotkina Speakers bureau: Novartis Amgen, Olga Tkachenko: None declared, Sergey Lapin: None declared, Alexey Maslyanskiy Speakers bureau: Boehringer Ingelheim Pharmaceuticals, Novartis, R-PHARM. Eli Lilly

DOI: 10.1136/annrheumdis-2022-eular.2645

POS1345

BEYOND PULMONARY ARTERY ANEURYSM; PULMONARY INVOLVEMENT IN BEHCET'S SYNDROME

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Background: Pulmonary involvement (PI) other than pulmonary artery aneurysm (PAA) in Behcet's syndrome (BS) is still an area of investigation.

Objectives: Herein, we aimed to retrospectively evaluate all types of pulmonary involvement associated with Behcet's syndrome (BS).

Methods: Among 800 BS patients according to International Study Group for Behcet's Disease (ISG) criterias, 28 patients were selected based on their radiologic examination consistent with BS-related PI. Demographic features, other clinical manifestations of BS, treatment modalities and types of PI were analyzed.

Results: The overall prevalence of PI was estimated 3,5% among all BS patients. PI was more common in males (82.1% vs 17.9%). Mean age for BS diagnosis and onset of PI were as following; 32 ± 10,9 and 37 ± 11,4 years. Deep vein thrombosis (DVT) was the most common accompanying vascular involvement (53,6%). PAA, pulmonary vasculitis (PV), and pulmonary thromboembolism (PTE) were seen in 7 (25%), 13 (46,3%), and 18 (64,4%) of patients, respectively. In 5 patients, intracardiac thrombosis was present simultaneously in the right ventricle. Cyclophosphamide (CYC) was the most common preferred agent (78%) followed by azathioprine (AZA) as first line. Warfarin used in 18 patients (Table 1) Mortality was seen in 3 patients during follow up (1 due to PAA bleeding, others with unknown causes).

Table 1. Characteristics of pulmonary involvement in BS patients

Male/Female, (n), (%)	23/5 (82,1%/17,9%)
Age of diagnosis, years (Mean± SD)	32 ± 10,9
Age of pulmonary involvement, years (Mean ± SD)	37 ± 11,4
Oral ulcer, (n), (%)	28 (100%)
Genital ulcer, (n), (%)	20 (71,4%)
Osteofollicular lesion, (n), (%)	20 (71,4%)
Erythema nodosum, (n), (%)	13 (46,4%)
Uveitis, (n), (%)	8 (28,6%)
DVT, (n), (%)	15 (53,6%)
Cardiac involvement, (n), (%)	5 (17,8%)
Pulmonary involvement, (n)	28
-PAA, (n), (%)	7 (25%)
-PV, (n), (%)	13 (46,4%)
-PTE, (n), (%)	18 (64,3%)
Immunosuppression (first line agents)	26/28
-Steroid, (n), (%)	26/28
-CYC, (n), (%)	22/26 (84,6%)
-AZA, (n), (%)	4/26 (15%)
Anticoagulation (warfarin), (n), (%)	18

PAA; pulmonary artery aneurysm, PTE; pulmonary thromboembolism, PV; pulmonary vasculitis, CYC; cyclophosphamide, AZA; azathioprine, DVT; deep vein thrombosis

Conclusion: Despite the importance of PAA in BS patients, capillaritis and thromboembolism other than PAA may occur commonly in BS as well. Onset at young age, male gender and previous DVT seem to be significant risk factors for the development of PI.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2022-eular.2669