Objectives: We performed a French retrospective study, to determine the risk factors associated with obstetrical adverse outcome; and the relation between pregnancy outcome and TA disease activity.

Methods: French nationwide retrospective study of pregnancies that lasted at least 12 weeks of gestation (WG) in TA patients.

Results: Forty-three pregnancies occurred in 33 patients. The diagnosis of TA was preexisting in 29 patients, and done during pregnancy in 4.

For the 39 pregnancies in the 29 patients with a preexisting diagnosis of TA: steroids were maintained throughout pregnancy in 23/39 (59%) with a median dose of 5 mg/day²⁻⁴⁰ immunosuppressive treatment during pregnancy included azathioprine (n=9, 21%) or infliximab (TNF- α antagonist) (n=1, 2%). For the 4 pregnancies with TA diagnosis during, only one was treated by steroids. Aspirin (100 mg/day) was used in 27/43 pregnancies (63%) and antihypertensive drugs were used in 10 pregnancies (23%).

Before pregnancy, immunosuppressive treatment had been used in 16 patients: azathioprine (n=10, 30%), methotrexate (n=7, 21%), TNF- α antagonist (infliximab in 3 and adalimumab in 1; n=4, 12%) and cyclophosphamide (n=2, 6%).

Maternal adverse events were noted in 20 pregnancies (47%). The most frequent adverse event was arterial hypertension (n=12; 28%): 10 worsening of previous arterial hypertension and 2 *de novo* arterial hypertension. Other adverse events included pre-eclampsia (n=3; 7%), HELLP syndrome (n=1; 2%) and post-partum haemorrhage (n=2; 5%). No maternal death was observed.

There were 42 live births (98%) delivered at a median term of 38²⁷⁻⁴² WG with 9 (21%) before 37 WG and one medical termination of pregnancy for major IUGR at 21WG. IUGR was observed in 6 pregnancies (14%) associated with hypertension and pre-eclampsia or HELLP syndrome in 2 cases.

The median birth weight was 2940 [610-4310] grams. Five children (12%) required intensive care units hospitalisation. One premature boy (27 WG) died after 2 days. Treatment during pregnancy included steroids (n=25/43, 58%), azathioprine (n=9/43; 21%) and infliximab (n=1/43; 2%). Pre-eclampsia were less frequent in patients treated with steroids during pregnancy (p=0.02).

The risk of developing arterial hypertension was associated with previous chronic arterial hypertension, and an infra-diaphragmatic vasculitis injury (p=0.01 and p=0.04). Activity of TA was observed in the course of 12/43 pregnancies (28%).

Conclusions: We observed both a high rate of obstetrical complications and of live birth. A preexisting chronic arterial hypertension, the infra-diaphragmatic location of vasculitis and/or an active disease in the 6 months preceding the pregnancy were associated with an impaired pregnancy outcome. TA disease activity did not seem to be influenced by pregnancy.

Disclosure of Interest: None declared

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FRI0509 THE FACTORS ASSOCIATED WITH ANXIETY/DEPRESSIVE DISORDERS IN BEHÇET'S DISEASE PATIENTS

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Background: The anxiety/depressive disorders (ADD) is a special psychopathological problem for Behçet's Disease (BD) patients. ADD has high rates in BD, but their causes aren't enough investigated.

Objectives: To determine the main factors associated with anxiety/depressive disorders in BD patients.

Methods: The investigation has been realised in accordance with the interdisciplinary program "Stress factors and mental disorders in immune-mediated inflammatory rheumatic diseases".

116 BD patients were enrolled in the study. The majority of patients were men (69,8%), natives of the North Caucasus (51,9%), with mean age (M $\pm$ m) 33,3 $\pm$ 0,98 years. All the patients met the criteria of the International Study Group for BD (1990) classification. The disease activity was assessed by scoring system BDCAF.

ADD were diagnosed by psychiatrist in accordance with the ICD-10 in semi-structured interview. The severity of depression was evaluated by Montgomery-Asberg Depression Rating Scale (MADRS) and anxiety – by Hamilton Anxiety Rating Scale (HAM-A). The severity of stress was evaluated by PSS-10 scale.

Results: ADD were diagnosed in 87 BD patients (75%). The dysthymia (29,3%) and recurrent depressive disorder (21,5%) prevailed in these patients, generalised anxiety disorder (6,03%) and single depressive episode (7,76%) were rare. Cognitive disorders of different severity were diagnosed in 87 (75%) patients. The presence of ADD didn't depend on gender and duration of the disease. The factors associated with ADD were found during Pearson correlations. Then linear regression analysis was done and obtaining prognostic model showed that ADD was associated with: sleep disorders (β =0,401), asthenia (β =0,176), cognitive disorders (β =0,145), chronic stress (β =0,036) and stress severity (PSS-10 score) (β =0,115), age of eye damage (β =0,135), onset of ADD before BD onset (β =0,147), pure quality of life (QoL) estimated by visual analogue scale (VAS)

(β =0,163), gastrointestinal BD symptoms (β =0,101), higher CRP level (β =0,174), younger age of patients (β =-0,053) and early childhood trauma (before 7 years old) (β =0,15) (area under the ROC curve=0,957) (figure 1).

Figure 1 Area under the ROC curve=0957

Conclusions: The results demonstrated high prevalence of ADD in surveyed BD patients. ADD in BD is much more associated with early childhood trauma, chronic severe stress, onset before BD, younger age of patients, older age of eye damage, gastrointestinal involvement, higher CRP level, accompanied by sleep disturbances, asthenia, cognitive disorders and had a negative impact on QoL.

Disclosure of Interest: None declared

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FRI0510 INCREASED EXPRESSION OF V-DOMAIN IG SUPPRESSOR OF T-CELL ACTIVATION (VISTA) ON LEUKOCYTES OF GRANULOMATOSIS WITH POLYANGIITIS (GPA) PATIENTS

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Background: Vascular inflammation in GPA is the result from an inflammatory event combined with a highly specific immune response. Antineutrophil cytoplasmic antibodies (ANCA) specific for GPA are directed against neutrophil granule proteins. Neutrophils are known to play an important role in the pathogenesis of GPA. Under normal conditions, activation of immune cells is positively and negatively regulated by stimulatory and inhibitory checkpoint molecules. The right balance between the expression of both molecules is crucial in fine-tuning the immune response and preventing autoimmunity. Recently, VISTA (V-domain Ig suppressor of T cell activation) has been identified as a potent negative regulator of T cell activation.

Objectives: This study aimed to investigate the expression of VISTA on circulating leukocytes of GPA-patients and compare it with vasculitis control (VC) patients with Giant Cell Arteritis (GCA) and healthy controls (HC).

Methods: In a cross-sectional study, fresh blood samples were obtained from 43 GPA-patients in remission on immunosuppressive treatment, 24 VC and 34 sex and age-matched HC. The frequency of VISTA expression was determined on Th-cells (CD45RO⁻ and CD45RO⁺), NK cells, monocyte subsets (classical/non classical/intermediate) and on neutrophils (suppressive/non suppressive subsets) by flow cytometry.

Results: The proportion of VISTA expressing Th-cells was significantly increased in GPA-patients compared with HCs, this increase could be seen in both, the CD45RO⁻ compartment as well as in the CD45RO⁺ compartment. NK cells from GPA-patients showed an increase in the proportion of VISTA expressing cells when compared to the VCs and HCs. Among monocyte subsets, a slight decrease in the proportion of VISTA on the Intermediate subset could be seen. Interestingly, on neutrophils a significant increase in the proportion of VISTA⁺ cells was seen in GPA-patients in comparison to HCs and VCs. This increase was most pronounced in the suppressive neutrophil subset.

Conclusions: VISTA expression is increased in both naïve and memory Th cells of GPA patients in remission. Interestingly, neutrophils of GPA patients showed higher levels of VISTA and this was most pronounced in the suppressive neutrophil subset. Whether the increased expression of VISTA has functional consequences needs further investigation.

Disclosure of Interest: None declared
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FRI0511 **THYROID ARTERY INVOLVEMENT DETECTED BY COLOUR-DOPPLER ULTRASONOGRAPHY IN AN INCIPIENT, SINGLE CENTRE GIANT CELL ARTERITIS COHORT**

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Background: The inflammation of thyroid arteries (ThA) is not commonly considered and investigated in giant cell arteritis (GCA).

Objectives: To estimate the frequency of the superior and/or inferior ThA involvement as detected by Colour Doppler Sonography (CDS).

Methods: We conducted a prospective single centre study between 1 October 2013 and 30 September 2017. The CDS of superior and inferior ThA was performed in all newly diagnosed, treatment naive GCA patients in addition to the routinely evaluated temporal, facial, occipital and large supraaortic arteries. The superior and inferior ThA were identified at their respective anatomical locations in close proximity to the thyroid gland and examined using the standard Doppler settings for temporal arteries. Arteries were evaluated in two planes for the highly specific halo sign. Laboratory thyroid function tests consisted of TSH, T3 and T4 measurements at the time of GCA diagnosis (prior to any steroid therapy). Characteristics of GCA cases with inflamed ThA were explored and compared to the GCA group without ThA involvement.

Results: During the 48 months we performed the CDS of the multiple arteries in 124 consecutive GCA patients (median age 74.7 (IQR 66.5–79.1) years, 65% female). We observed the halo sign on either superior or inferior ThA in 11 (8.9%) cases. All the patients with ThA involvement also had CDS signs of temporal artery involvement, which was confirmed by temporal artery biopsy in all 11 cases. There was a positive trend for correlation between fever ($\geq 38^\circ\text{C}$) and/or dry cough in the patients with ThA involvement (fever: RR 2.99, CI 0.98–9.06, $p=0.07$; dry cough: RR 2.73, CI 0.89–8.3, $p=0.10$). Four patients reported symptoms consistent with thyroid gland pathology. None of the patients with ThA involvement had symptoms of polymyalgia rheumatica. No correlation was found with other clinical and demographic characteristics, including weight loss, headache, jaw claudication and visual disturbances.

Sixteen out of 124 GCA patients (12.9%) had a history of thyroid dysfunction (11 hypothyroidism, 1 hyperthyroidism, 1 euthyroid goitre; 3 patients had thyroid surgery because of either goitre or suspected malignancy). In 2/16 patients we also found CDS signs of ThA involvement, yet the thyroid function tests were normal at the time of GCA diagnosis in these patients. Laboratory signs of thyroid dysfunction were found in 3/11 (27.2%) patients with ThA involvement (2 latent hyperthyroidism, 1 latent hypothyroidism), none of these patients had previous history of thyroid disease.

Conclusions: In our incipient GCA cohort, a tenth of all patients had ultrasonographic signs of ThA involvement. To the best of our knowledge, this is the first study that systematically assessed the ThA involvement.

Disclosure of Interest: None declared

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FRI0512 **RISK OF OPPORTUNISTIC INFECTIONS IN PATIENTS WITH ANTINEUTROPHIL CYTOPLASMIC ANTIBODY-ASSOCIATED VASCULITIS USING JAPANESE HEALTH INSURANCE DATABASE**

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Background: It has been reported that patients with antineutrophil cytoplasmic antibody associated vasculitis (AAV) had a high risk of infections^{1–3}. Among infections, opportunistic infections (OIs) influence patients' vital prognosis and complicate treatments. It is essential to investigate risk of OIs for appropriate management of patients with AAV. However, data about incidence of OIs and risk factors in patients with AAV is limited to date.

Objectives: To identify incidence and risk factors of OIs under the remission-induction therapy in patients with AAV using Japanese health insurance database.

Methods: This retrospective longitudinal population-based study was conducted using claims data provided by Medical Data Vision Co., Ltd. We defined individuals as AAV cases receiving remission-induction therapy if they met all of the following: 1) had at least one ICD10 code (M300 or M301 or M313 or M318); 2) had at least one prescription of oral corticosteroids (CS) with prednisolone (PSL)-equivalent dosage ≥ 30 mg/day, methylprednisolone (mPSL) pulse therapy, immunosuppressive drugs (IS) (cyclophosphamide, methotrexate, mycophenolate mofetil), or rituximab during hospitalisation between April 2008 and April

2017 and 3) had at least 7 days of hospitalisation. If patients had multiple hospitalizations for AAV remission-induction therapy defined as above, the first hospitalisation between April 2008 and April 2017 was analysed in this study. OIs were defined as follows: at least one ICD10 code and one prescription of predefined drugs for each OI during hospitalisation. We calculated incidence proportion and adjusted odds ratio (OR) of risk factors for OIs using a logistic regression model.

Results: Two thousands and two hundreds ninety nine patients were included in this study. The median age was 73 years and 55.2% were female. The number of patients with ICD10 code M300 for microscopic polyangiitis, M301 for eosinophilic granulomatosis with polyangiitis, M313 for granulomatosis with polyangiitis, M318 for AAV, and two or more of these ICD10 codes was 1015 (44.1%), 385 (16.7%), 234 (10.2%), and 665 (28.9%), respectively. mPSL pulse therapy, oral PSL ≥ 30 mg/d, at least one IS, and rituximab was used in 37.5%, 83.3%, 26.2%, and 5.4%. OI occurred in 203 patients (8.8%) and the most frequent OI was cytomegalovirus infection ($n=79$, 3.4%). The numbers (%) of candida infection, aspergillus infection, and pneumocystis jirovecii pneumonia were 28 (1.2), 24 (1.0), and 22 (1.0). No case with tuberculosis was observed. After adjusting for comorbidities, age by decade (OR: 1.34 [95% CI, 1.16–1.57]), IS or rituximab use (OR 1.60 [1.17–2.18]), mPSL pulse therapy (OR 2.62 [1.93–3.56]), PSL dosage per 1 mg (OR 1.02 [1.01–1.03]) were associated with occurrence of OIs significantly.

Conclusions: Older age, immunosuppressive treatments were identified as significant risk factors of OIs under the remission-induction therapy in patients with AAV using health insurance database.

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FRI0513 **THE IMPACT OF DEPRESSION, ANXIETY AND FATIGUE IN PATIENTS WITH BEHÇET'S DISEASE**

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Background: Behçet's disease (BD) is a type of systemic vasculitis and inflammatory disease with unknown etiology which is associated with fatigue and lower quality of life (QoL).¹

Objectives: In this study we aimed to assess the relationship between BDCAF and BDQoL, depression, anxiety and fatigue in Behçet's disease.

Methods: This is a cross-sectional study of 155 Behçet's syndrome (BS) patients and 107 healthy controls in Turkey. All subjects completed the Multidimensional Assessment of Fatigue (MAF) questionnaire, Hospital Anxiety and Depression (HADS) scale. Disease activity among BS patients was assessed using the Behçet's Disease Current Activity Form (BDCAF), and the physician's global assessment (PGA). And BD patients completed the Behçet's Disease Quality of Life (BDQoL) questionnaire.

Results: There was no significant difference with age and gender between the groups. BS patients had significantly higher HADS-anxiety (HADS-A), HADS-depression (HADS-D) and MAF scores than the healthy controls ($p<0.05$) (table 1). BS patients with active disease had significantly higher MAF and HADS-A scores compared to inactive BS patients ($p<0.05$). MAF scores showed positive correlations with HADS-A, HADS-D, BDCAF and BDQoL (table 2).