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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).