AB0674

RISK FACTORS OF ATHEROSCLEROSIS IN PATIENTS WITH TAKAYASU'S ARTERITIS

J. Du, Beijing Anzhen Hospital, Beijing, China

Background: The incidence of atherosclerosis (As) in Takayasu's arteritis (TAK) was significantly higher than that of other people of the same age and gender. The incidence of carotid artery plaque in TAK patients was 27%, while only 2% of the age and sex matched controls were in the control group¹. Autopsy confirmed that atherosclerotic lesions were found in arterial wall in TAK². Inflammation of the vascular wall may promotes As in TAK, which may be related to the disorder of lipid metabolism disorder, which accelerates the development of As. The ratio of low-density lipoprotein cholesterol (LDL-C)/high-density lipoprotein cholesterol (HDL-C) predicted As progression better than LDL-C or HDL-C alone³. Higher triglyceride (TG)/HDL-C ratio was found to be associated with presence of endothelial dysfunction and As⁴.

Objectives: The aim of this study is to investigate the clinical manifestations, serological and imaging features in TAK with As and non-As, to find the risk factors of As in those patients.

Methods: A retrospectively study of 105 patients in TAK were divided into 2 groups according to with or without As. We compared the difference of general information, traditional risk factors, disease activities and imaging features between 2 groups. Logistic model were used to determine the risk factors of As in TAK patients.

Results: In this study, 53 patients (50.48%) with TAK were had As. The duration of disease in TAK patients with As significantly longer than non-As group ($p=0.011$). LDL-C/HDL-C ratio in TAK with As significantly higher than non-As ($p=0.025$). Serum level of CRP in TAK with As patients lower than non-As patients. In disease activities, there were no differences in Kerr score and ITAS between 2 groups. The traditional risk factors of As in two groups were compared, hypertension ($p=0.001$) and family history of As ($p=0.012$) were all higher in As group than non-As group. In As group, most common angiographic type was Numano type V, which was higher than that in non-As patients (58.49% vs 38.46%, $p=0.040$). Logistic regression showed the age above 40 years old is 5.196 times higher than the patients who are under 40 ($p=0.002$, 95%CI: 1.843–14.648) to develop to As. The incidence of As increased by 2.945 times every 5 years ($p=0.003$, 95%CI: 1.431–6.062). History of hypertension has more risk to As ($p=0.029$, OR=4.088, 95%CI: 1.153–14.494). More important, the LDL-C/HDL-C ratio was above the predicted cut-off value 3.038, the incidence of As increased by 8.515 times ($p=0.023$, 95%CI: 1.343–53.976), the TG/HDL-C ratio was above predicted 0.909 cut-off value, the incidence of As increased by 3.725 times ($p=0.024$, 95%CI: 1.185–11.711).

Abstract AB0674 – Figure 1. Levels of serum lipids in 2 groups of TA patients. There were no differences in TG, CHO, HDL-C and LDL-C between TA patients with atherosclerosis (As) and non-atherosclerosis (non-As)

Abstract AB0674 – Figure 2. Ratios of serum lipids in 2 groups of TA patients. There were no differences in TG/HDL-C ratio and CHO/HDL-C ratio between 2 group. LDL-C/HDL-C

ratio in patients with atherosclerosis (As) were higher than that of non-atherosclerosis (non-As) group (2.33 ± 1.09 vs 2.00 ± 0.74) ($p=0.025$).

Conclusions: Our study showed the duration of disease and LDL-C/HDL-C more higher in TAK patients with As than without As. Age ≥ 40 years old, the duration of disease, hypertension, TG/HDL-C and HDL-C/HDL-C ratios were the risk factors of As in TAK patients.

REFERENCES:

- [1] Filer A, et al. Takayasu arteritis and atherosclerosis: Illustrating the consequences of endothelial damage. *J Rheumatol.* 2001;28:2752–2753
- [2] Seyahi E, et al. Atherosclerosis in takayasu arteritis. *Ann Rheum Dis.* 2006;65:1202–1207
- [3] Enomoto M, et al. LDL-C/HDL-C Ratio Predicts Carotid Intima-Media Thickness Progression Better Than HDL-C or LDL-C Alone. *Journal of Lipids*, 2011, (2011–07–5):549137.
- [4] Keles N, et al. Is triglyceride/HDL ratio a reliable screening test for assessment of atherosclerotic risk in patients with chronic inflammatory disease? *Northern Clinics of Istanbul*, 2016, 3(1):39–45.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3300

AB0675

RHEUMATOID FACTOR POSITIVITY IS RELATED TO CLINICAL AND IMMUNOLOGICAL CHARACTERISTICS IN PATIENTS WITH EOSINOPHILIC GRANULOMATOSIS WITH POLYANGIITIS

J. Inamo, Y. Kaneko, Y. Ohta, T. Takeuchi, Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan

Background: Eosinophilic granulomatosis with polyangiitis (EGPA) is a rare anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV), which is characterised by vasculitis with allergic features such as asthma and eosinophilia. Although rheumatoid factor (RF) positivity is known to be as high as 37%–50% in AAV patients¹ the clinical significance of RF-positivity remains unknown.

Objectives: To investigate clinical features in patients with RF in EGPA.

Methods: Consecutive patients who were diagnosed with EGPA between January 2008 and January 2018 in Keio University Hospital were enrolled. Clinical information were collected from medical records retrospectively. We divided patients into 2 groups according to RF positivity, and compared clinical features.

Results: Seventeen patients were enrolled in the study. The mean age was 57.4 years old, and 82% were female. Among them, 11 patients were RF positive (RF positive group) and 6 patients were negative (RF negative group). The female rate tended to be higher in the RF positive group than the negative group (82% vs 50%, $p=0.087$). While the Birmingham Vasculitis Activity Score was comparable between the two groups (21.5 vs 17.3, $p=0.329$), general symptoms (fever and weight loss) and gastrointestinal lesions were more frequent in the RF positive group (55% vs 17%, $p=0.072$; 45% vs 17%, $p=0.137$) and central nervous involvement was less frequent (18% vs 67%, $p=0.024$). No patient with negative RF presented with arthralgia/arthritis. The count of eosinophil and IgA levels at diagnosis were significantly higher in the RF positive group than the RF negative group (15704/ μ l vs 4751/ μ l, $p=0.009$; 238 mg/dL vs 162 mg/dL, $p=0.048$). Interestingly, ANCA positivity was negatively correlated with RF positivity. MPO-ANCA was positive in 27% of the RF positive group and in 66% of the RF negative group, and PR3-ANCA was positive in none of the RF positive group and 17% of the RF negative group. Double negative was more frequent in RF positive group (73% vs 33%, $p=0.060$).

Conclusions: RF positivity was associated with clinical and serological characteristics in patients with EGPA, suggesting different pathogenesis or immunological disturbances is related.

REFERENCE:

- [1] Pagnoux C, Seror R, Bérezné A, Rouabhia S, Goulvestre C, Guillemin L. Remittent non-destructive polysynovitis in P-ANCA-positive vasculitis patients with anti-CCP antibodies. *Joint Bone Spine.* 2010;77(6):604–7.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5149