Table 2. Related factors for malignancies in patients with IgG4-RD

Variables	Univariate analysis		Multivariate analysis	
	Univariate OR (95%CI)	P-value	Multivariate OR (95%CI)	P-value
Head and Neck involvement	0.304 (0.097- 0.952)	0.041	0.604 (0.152-2.401)	0.474
Autoimmune pancreatitis	5.359 (1.651-17.393)	0.005	6.230 (1.559-24.907)	0.010
Eosinophilia	0.117 (0.014-0.966)	0.046	0.094 (0.010-0.883)	0.039

Figure 1. Standardized incidence ratios of malignancies in patients with IgG4-RD from different studies.

Methods: We prospectively analyzed the IgG4-RD patients recruited in Peking Union Medical College Hospital from January 2011 to August 2018 and identified patients diagnosed with IgG4-RD complicating malignancies. Data regarding demographics, clinical features, treatment and prognosis of IgG4-RD patients complicating malignancies were collected and compared to those of age- and sex-matched controls.

Results: Among the 587 Chinese patients with IgG4-RD, 17 malignancies were identified. Ten of them developed malignancy after the diagnosis of IgG4-RD, given a standard incidence ratio (SIR) of 2.78 (95%CI 1.33-5.12). Multivariate logistic analysis indicated that autoimmune pancreatitis (OR= 6.230, 95%CI 1.559-24.907, p=0.010) was positively associated with malignancy, whereas eosinophilia (OR= 0.094, 95%CI 0.010-0.883, p=0.039) was negatively related with malignancies. During a median follow-up period of 61.4±26.4 months, all patients with IgG4-RD and malignancies survived.

Conclusion: An increased incidence of malignancy was found in Chinese IgG4-RD cohort. Autoimmune pancreatitis is a potential risk factor, whereas eosinophilia is a possible protective factor for complicating malignancies.

References:

- Wallace, Z. S., et al. Association of IgG4-Related Disease With History of Malignancy. *Arthritis Rheumatol* 68, 2283–2289 (2016).
- Hirano, K. et al. Incidence of malignancies in patients with IgG4-related disease. *Intern. Med.* 53, 171–176 (2014).

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4001

FRI0509 COMPARISON OF MS SCORE AND HSCORE FOR THE DIAGNOSIS OF ADULT-ONSET STILL'S DISEASE ASSOCIATED MACROPHAGE ACTIVATION SYNDROME

L. Zhang¹, X. Yang¹, T. Li¹, S. Liu¹. ¹1st affiliated hospital of Zhengzhou University, Zhengzhou, China

Background: Adult-onset Still's disease (AOSD) is a rare multisystemic auto-inflammatory disease. Macrophage activation syndrome (MAS) is a life-threatening complication of rheumatic disorders, including sJIA, adult-onset Still's disease (AOSD) and lupus. Many tools have been developed for the diagnosis of MAS, including HScore and MS score. Although some authors have tried to apply these tools for the diagnosis of AOSD-associated MAS, there are no studies comparing the diagnostic ability of HScore and MS score.

Objectives: We aimed to compare the capacity of HS score and MS score for the diagnosis of AOSD-associated MAS.

Methods: Patients diagnosed as AOSD during January, 2012 and October, 2019 in our hospital were retrospectively analyzed. Clinical and laboratory data were compared between patients with pure AOSD and those with AOSD associated MAS. HScore and MS score were calculated respectively and the diagnostic capacity of MAS was compared by means of receiver operating characteristic (ROC) curve analysis.

Results: We included 174 patients with pure AOSD and 35 patients with AOSD-associated MAS. Patients with AOSD-associated MAS were younger than those with pure AOSD (32.4±11.4 yrs vs 36.9±13.5 yrs, P=0.028). More death were observed among patients with AOSD-associated MAS (17.1% vs 3.4%, P=0.001). Patients with AOSD-associated MAS had higher HScore (median [range] 196 [98-333] vs 68 [33-156], P<0.001) and higher MS score (median [range] 1.05 [-1.26-26.55] vs -1.17 [-1.26-2.52], P<0.001) than those with pure AOSD. The difference of different parameters of these two groups of patients

Figure 1. ROC curve of HScore and MS score. HScore=120, sensitivity=90.6%, specificity=89.6%. MS score=-0.45, sensitivity=75%, specificity=73%. AUC-HScore=0.973, AUC-MS score=0.865, P<0.001

were detailed in Table 1 and Table 2. ROC curve analysis (Figure 1) revealed that HScore has stronger ability to diagnose AOSD-associated MAS compared with MS score (AUC=0.973 and 0.865 for HScore and MS score respectively, P<0.001). HScore≥120 perform best (sensitivity 90.6% and specificity 89.6%). MS score≥-0.25 yielded a sensitivity of 75% and a specificity of 73%.

Conclusion: HScore seems to perform much better than MS score for the diagnosis of AOSD-associated MAS in our cohort.

References:

- Siddiqui M, Putman MS, Dua AB. Adult-Onset still's disease: current challenges and future prospects. *Open Access Rheumatol* 2016;8:17–22.
- Bracaglia C, Prencipe G, De Benedetti F. Macrophage activation syndrome: different mechanisms leading to a one clinical syndrome. *Pediatr Rheumatol Online J* 2017;15.
- Guilpain P, Le Quellec A. About the complexity of adult onset still's disease... and advances still required for its management. *BMC Med* 2017;15:5.
- Minoia F, Bovis F, Davi S, et al. Development and initial validation of the MS score for diagnosis of macrophage activation syndrome in systemic juvenile idiopathic arthritis. *Ann Rheum Dis* 2019;78:1357–1362.
- Fardet L, Galicier L, Lambotte O, et al. Development and validation of the HScore, a score for the diagnosis of reactive hemophagocytosis syndrome. *Arthritis Rheumatol.* 2014 Sep;66(9):2613-20.
- ED Batu, A Erden, E Seyhoğlu, et al. Assessment of the HScore for reactive haemophagocytic syndrome in patients with rheumatic diseases. *Scand J Rheumatol.* 2017 Jan;46(1):44-48.
- Wang R, Li T, Ye S, et al. Application of MS score in macrophage activation syndrome patients associated with adult onset Still's disease. *Ann Rheum Dis.* 2019 Oct 14. pii: annrheumdis-2019-216286.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.4303

FRIDAY, 05 JUNE 2020

Public health, health services research, and health economics

FRI0510 THE FREQUENCY OF CONTRACEPTION DOCUMENTATION IN WOMEN ON AND OFF TERATOGENIC ANTI-RHEUMATIC MEDICATIONS IN THE RISE REGISTRY

M. Clowse¹, J. Li², M. Birru Talabi³, A. Eudy¹, G. Schmajuk². ¹Duke University, Durham, United States of America; ²UC San Francisco, San Francisco, United States of America; ³UPMC, Pittsburgh, United States of America

Background: Several of the most commonly prescribed medications for women with rheumatic disease are teratogens, posing a risk for pregnancy loss and birth defects if taken in pregnancy. To prevent these life-altering complications, it is important that all women taking teratogenic medications avoid pregnancy through abstinence or contraception.

Objectives: We sought to understand the accessibility to contraceptive data within the RISE Registry and to test whether, compared to other women,