Results: 134 cases were reviewed, concerning 80 PMR (mean age 67.9) and 54 "controls" (mean age 68.1). Overall, PET muscle damage was observed in 27 cases (34%) in PMR and 6 cases (11%) in controls ($p=0.004$). The damage is bi or multi-focal in 16/27 cases. The affected sites are: thighs and ischium-leg ($n = 10$), spinal (11), piriform/buttocks (7), pectoral (5), large serrated (4), subspinatus/subscapular (3), deltoid (1), trapezius (1). Fasciitis was found in 4 cases. As expected, PMR patients exhibited higher TEP scores than controls ($p<0.001$). In PMR patients, PET muscle involvement was associated with higher ESR values ($p<0.05$), but not with age, CRP or global PMR PET score.

Conclusion: Muscle involvement assessed by ^{18}F -Fluorodeoxyglucose PET-CT is frequent in PMR (1/3), located at usual sites of symptoms of the disease, without association with age, CRP levels or global PET score for PMR. Muscle should be carefully evaluated during PET in cases of PMR; these pictures may be a new diagnosis feature of the disease.

REFERENCES

- [1] Sondag M, et al. *Rheumatology* 2016;55(8):1452-7.
- [2] Goerres GW, et al. *Clin Nucl Med* 2006;31:386-90.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.5256

SAT0251

SEX- AND AGE-RELATED DIFFERENCES IN CLINICAL MANIFESTATIONS OF BEHÇET'S DISEASE IN A LARGE COHORT OF CHINA PATIENTS

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Background: Behçet's disease (BD) is a systemic vasculitis with multiple symptoms such as recurrent oral and/or genital ulceration, skin lesions, ocular lesions, and other systems affection. Studies have been conducted to reveal sex- and age-related differences in clinical characteristics of BD in several countries¹⁻⁵, but up to now sex and age influence for Chinese BD patients is very limited.

Objectives: This study aimed to investigate the clinical phenotypes of BD concerning gender and age in China.

Methods: We retrospectively reviewed the medical records of BD patients followed up in the Departments of Rheumatology, Peking Union Medical College Hospital (PUMCH) between March 2014 and January 2019. Demographics, clinical features at onset and during follow-up were obtained from a review of medical records.

Results: A total of 489 BD patients were included in our database: 286 males (58.49%) and 203 females (41.51%) (Sex ratio M/F was 1.41), with a median age of 34 years (interquartile range: 28-44 years). Recurrent oral ulceration was the most common manifestation (96.32%), followed by genital ulceration (71.17%), skin lesions (57.67%), vascular lesions (25.36%), and ocular involvement (24.13%). Gastrointestinal (GI) involvement (15.13%), positive pathergy test (14.11%), and neurological involvement (5.93%) were less frequently observed. The comparative study between males and females revealed that ocular lesions (28.67% vs 17.73%, $P=0.005$), vascular lesions (31.47% vs 16.75%, $P<0.001$) and positive pathergy test (17.83% vs 8.37%, $P=0.002$) were more common in male, while genital ulceration was more common in female (64.34% vs 80.79%, $P<0.001$). Regarding age difference, ocular lesions ($P=0.017$) were more frequently observed in younger patients, while vascular lesions ($P=0.024$) and GI symptoms ($P=0.010$) were more common in older patients. Gender differences of these manifestations were more prominent in certain age groups among 20-50 years old than other groups.

Conclusion: These analyses support that the clinical features of Chinese BD were different depending on sex and age.

REFERENCES

- [1] Bonitsis NG, et al. *Gender-specific differences in Adamantiades-Behçet's disease manifestations: an analysis of the German registry and meta-analysis of data from the literature*. *Rheumatology* 2015. 54, 121.
- [2] Ishido, T. et al. Clinical manifestations of Behçet's disease depending on sex and age: results from Japanese nationwide registration. *Rheumatology* 2017. 56, 1918-1927.

- [3] Ugurlu, N. et al. *The natural course and factors affecting severity of Behçet's disease: a single-center cohort of 368 patients*. *Rheumatol Int* 2015. 35, 2103-7.
- [4] Khabbazi A, et al. *Demographic and clinical features of Behçet's disease in Azerbaijan*. *Int J Rheum Dis* 2014. 21, 1114-1119.
- [5] Hamzaoui, A. et al. *Comparison of clinical features of Behçet disease according to age in a Tunisian cohort*. *Acta Med Iran* 2014;52,748.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.4742

Scleroderma, myositis and related syndromes

SAT0252

AN EVALUATION OF THREE DIFFERENT METHODS TO EVALUATE SKIN IMPAIRMENT IN SYSTEMIC SCLEROSIS PATIENTS

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Background: One of the characteristics of systemic sclerosis (SSc) is an increase in dermal thickness (DT) (1-3). Although the standard method to evaluate the extent of skin involvement is the modified Rodnan skin score (mRSS) (3,4), high frequency ultrasounds (US) and the plicometer skin test (Plicometry) (5-8) are now being used in SSc patients.

Objectives: The aim of this study was to determine any correlations between mRSS, US and Plicometry during the evaluation of skin impairment in SSc patients.

Methods: A total of 63 SSc patients (mean age 64 ± 13 SD years, mean SSc duration 7 ± 6 years) and 63 healthy subjects (HS) (mean age 64 ± 12 SD years) were enrolled.

The three methods (mRSS, US and Plicometry) were used to evaluate skin impairment in the seventeen areas of the skin usually evaluated by mRSS (face, fingers, dorsum of hands, forearms, arms, chest, abdomen, thighs, legs and feet) and the total score was calculated, as previously reported (1,3,4,8). Intra-rater reliability of the three techniques was assessed by having the same rater performing 2 consecutive measurements at each skin site. Statistical evaluation was performed by non-parametric tests.

Results: A significant positive correlation was observed between the three methods used to evaluate DT in the SSc patients (mRSS vs US $r=0.64$, $p<0.0001$; mRSS vs Plicometry $r=0.97$, $p<0.0001$; US vs Plicometry $r=0.55$, $p<0.0001$). Conversely, there was no correlation between these parameters in the CNT group ($p>0.05$). The intraclass correlation coefficients for mRSS was 0.95, 0.97 for US and 0.96 for Plicometry. Data collection for mRSS took almost 10 minutes, 15 minutes for Plicometry and 20 minutes for US.

Conclusion: This study demonstrates a significant relationship between mRSS, US and Plicometry in the DT evaluation of SSc patients. The SSc patients had statistically significantly higher values than HS when the 3 techniques were used to evaluate the seventeen skin areas.

REFERENCES:

- [1] Cutolo M, et al. *Best Pract Res Clin Rheumatol*. 2016;30:670-687.
- [2] Ruaro B, et al. *Arthritis Rheumatol* 2015; 67 (suppl 10).
- [3] Clements P, et al. *J Rheumatol* 1995;22:1281-5.
- [4] Czirják L, et al. *Ann Rheum Dis*. 2007; 66: 966-9.
- [5] Hesselstrand R, et al. *Rheumatology* 2008;47:84-7.
- [6] Kaloudi O, et al. *Ann Rheum Dis*. 2010;69:1140-3.
- [7] Ruaro B, et al. *Microvasc Res*. 2018;115:28-33.
- [8] Parodi MN, et al. *Br J Rheumatol*. 1997;36:244-50.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.1739