Background: Sarcoidosis (S) is a granulomatous disease with multi-organ involvement displaying a mixed immune-mediated pathophysiology. Raynaud’s phenomenon (RP) has been occasionally reported in S patients [1] and serum positivity for autoantibodies has been detected in S patients but their significance is debated [2].

Objectives: We described nailfold videocapillaroscopy (NVC) findings and estimated the prevalence of serum anti-nuclear (ANA) and extractable nuclear antigen autoantibodies (ENA-Abs) in S patients, comparing them with age- and sex-matched healthy controls (HCs) and patients with primary Raynaud’s phenomenon (PRP).

Methods: Twenty-seven (27) S patients, classified according to WASOG criteria[3], were assessed through NVC examination, laboratory parameters (including serum concentrations of angiotensin-converting enzyme [ACE], C-reactive protein [CRP], calcium, phosphorus, albumin, 25-hydroxyvitamin D, parathormone, ANA and ENA), pulmonary function tests (PFTs), chest X-ray and positron emission tomography/computed tomography (PET/CT). Among NVC parameters, we analysed capillary dilations, giant capillaries, haemorrhages, non-specific abnormalities, and capillary absolute number for mm [4]. Pulmonary involvement was classified by X-ray Scadding staging system (SSS) scoring S patients in 4 grades [5]. From PET data, the maximum standard uptake value (SUVmax) was quantified as a variable of pulmonary function and whole-body imaging.

Results: We excluded, among the cohort of S patient, one participant having a systemic sclerosis in overlap with S. The remaining 26 S patients (mean age 56.5 ± 12.5 years, 53.8 % of females, disease duration 28.4 ± 55.1 months, 27% glucocorticoid-naïve) showed a significant higher rate of dilations and non-specific abnormalities and a lower mean capillary absolute number than PRPs and HCs (p < 0.01 for all comparisons). (Figure 1) The prevalence of ANA positivity was significantly higher in S patients compared with PRPs and HCs (p < 0.02 for all comparisons). Among the whole cohort of patients only one S patient displayed a positive ENA-Ab (Ro52). In the analysis of S patients’ subgroup, a significant negative correlation was detected between serum ACE levels with the presence of capillary dilations (rho = -0.45, p = 0.04), between CRP and mean capillary absolute number (rho = -0.49, p = 0.02) and a positive correlation was also detected between the mean capillary absolute number and the forced vital capacity percentage (FVC%) (rho = 0.40, p = 0.04).

Conclusion: Our findings suggest a microvascular involvement in sarcoidosis whose investigation by NVC could be useful for the detection of an overlapping connective tissue disease and for the monitoring of the phenotypes of S patients displaying RP. The positivity for autoantibodies in S patients is in line with literature data suggesting, at least partially, autoimmune features of the disease or the production of autoantibodies reactive to tissue damage.

REFERENCES:

Disclosure of Interests: None declared

Table 1:

<table>
<thead>
<tr>
<th>Groups</th>
<th>mean score of B-lines</th>
<th>Anterior chest Mean score of B-lines</th>
<th>Posterior chest Mean score of B-lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited (n=33)</td>
<td>22±14</td>
<td>6.6 ±1.1</td>
<td>15.4±1.3</td>
</tr>
<tr>
<td>Extensive (n=17)</td>
<td>61±23</td>
<td>24±1.5</td>
<td>36±2.2</td>
</tr>
<tr>
<td>P</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

The correlations in Table 1 may confirm the connection of B-lines score and extensity of ILD association with rheumatic disease. The mean score of ULN determined in all 50 pts didn’t correlate with dates of ESR (R = 0.188, p<0.05) and hsCRP (R = -0.07, p<0.05).

Conclusion: In Russian cohorts presence of LUS score is associated with more severe ILD. Echographic examination of the lung allows evaluating the severity of lung fibrosis and can be used as an additional simple and available method to assess the ILD of rheumatic disease, but we couldn’t find correlation with hsCRP and ESR.

Disclosure of Interests: None declared