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AB0647
ASSOCIATION OF VASCULAR BIOMARKERS WITH SYSTEMIC SCLEROSIS CLINICAL FEATURES AND NAILFOLD VIDEOCAPILLAROSCOPY ALTERATIONS- CROSS SECTIONAL STUDY

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Background: The most reliable markers reflecting endothelial activation and injury in Systemic sclerosis (SSc), are intercellular adhesion molecule (ICAM1), vascular cell adhesion molecule (VCAM1), E selectin (Es) and P selectin (Ps) (1).

Objectives: To assess concentrations of these vascular biomarkers in SSc patients (pts) in comparison to healthy controls (HC) and in relation to disease manifestations.

Methods: Patients who fulfilled the 2013 ACR/EULAR SSc classification criteria and have never been treated with endothelin receptor antagonist, phosphodies- terase 5 inhibitors or prostanoids were eligible. Exclusion criteria were overlap syndromes, other autoimmune and cardiovascular diseases, diabetes mellitus, thrombosis, pregnancy, active infection or neoplastic diseases. Our study included 53 SSc pts (34 limited (lcSSc) and 19 diffuse cutaneous SSc (dcSSc)) and 31 age- and sex matched HC. Serum concentration of ICAM1, VCAM1, Es and Ps were measured using a commercial ELISA kit (Quantikine; R&D Systems), expressed as ng/mL. Clinical evaluation of patients was obtained, including nailfold videocapillaroscopy (NVC).

Results: Disease activity was assessed by the revised EUSTAR activity index. Statistical analysis was done in R. Student's t-test or ANOVA, otherwise Mann-Whitney U or Kruskal-Wallis tests were used. Pearson’s or Spearman’s correlation were done depends on nature of data. ICAM1 cut off value were assessed with ROC analysis. Association were performed with uni- variate logistic regression for NVC alterations and multivariate for Anti-Topo/Sc/Th70 antibodies (aTsA).

Conclusion: ICAM1 was higher in dcSSc compared to lcSSc (p<0.05). ICAM1 level were independently associated with positive aTsA (OR 1.2, 95% CI 1.02–1.35, p<0.001), with distinguishing cut off value of 34.94 (Sn 0.90%, Sp 0.60%, AUC 0.85). ICAM 1 was positively correlated with the erythrocyte sedimentation rate (r 0.3, p<0.05) especially within disease duration > 3 years group (r 0.4, p<0.05). Higher levels of ICAM1 was found in diffusing capacity of the lungs for carbon monoxide<70% (p<0.05), modified Rodnan skin score >14 (p<0.05) and active disease (p<0.05) group. Calcino- sis group had decreased level of Es (p<0.05) and increased Ps (p<0.05). Es was lower in group with acroosteolysis (p<0.05). Trends towards increased Ps concentration from early to late NVC pattern were observed for all biomarkers except Es which showed the highest concentration in active group, but without significant differences (p<0.05).

Few megacapillaries were associated with ICAM1 (OR 1.2, 95% CI 1.06–1.34, p<0.05) and Ps (OR 1.2, 95% CI 1.08–1.39, p<0.05), while pres- ence of bushy capillaries were associated with ICAM1 (OR 1.3, 95% CI 1.06–1.36, p<0.05) level.

Conclusion: Our results support the role of vascular biomarkers in SSc pathogenesis. Besides anti-Topo/Sc/Th70 antibodies, ICAM-1 could be used as an additional marker of dSSc. Elevation of ICAM1 and Ps concentra- tion might be associated with late NVC alterations.

REFERENCES

AB0648
CORRELATIONS BETWEEN NEUTROPHIL/LYMPHOCYTE RATIO AND CLINICAL CHARACTERISTICS OF PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: The ratio of neutrophils to lymphocytes (NRL) is considered a novel inflammatory marker. Recently studies are ongoing for objective and easy markers (1).

Objectives: In this study, we aimed to identify the possible relationship between NRL and clinical characteristics inn patients with systemic sclero- sis (SSc).

Methods: Our study is based on a retrospective analysis. We collected in a data base clinic and epidemiological characteristic of SSc patients. Fifty-two patients (46 female; 10 subset diffuse) with SSc were enrolled consecutively for analyser the correlations. We considered the correlation with NRL and skin core, ulcers, pitting scars, gastro-intestinal events, fibrosis on HTCR, respiratory parameters (FVC, DLCO), PAPs, diastolic abnormalities, capillaro-scopy alterations and activity index (2). Student’s t-test was used for comparison averages, correlation among variables were assessed by Spearman’s correlation testing.

Results: sociodemographic and clinical characteristic were reported in table 1. The correlation analysis statistically significant is summarized in table 2: NRL vs skin score, DLCO, PAPs, and activity index. The corre- lation analysis between NRL and presence of ulcers and pitting scars was considered not quite significant. There were no correlations between other parameters and NRL.

Conclusion: NRL values correlated negatively with DLCO value, and posi- tively with PAP value, skin score and activity index NRL level may serve as inflammatory marker in patients with SSc.

REFERENCES

Table 1. Sociodemographic and clinical characteristics

<table>
<thead>
<tr>
<th>Patients n=52</th>
<th>Age (years) mean ±sd</th>
<th>Sex (M/F)</th>
<th>Disease duration (years) mean ±sd</th>
<th>WBC count (K/jul) mean ±sd</th>
<th>NLR, mean ±sd</th>
<th>Skin score, mean ±sd</th>
<th>DLOC0% of predict. mean ±sd</th>
<th>PAPs mmHg, mean ±sd</th>
<th>Ulcers (yes/no)</th>
<th>Pitting scars (yes/no)</th>
<th>Calloprophy alterations, normal/early/active/late</th>
<th>Activity index, mean ±sd</th>
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<tr>
<td>53.58±13.99</td>
<td>6/46</td>
<td>8.68±1.06</td>
<td>6748±3202</td>
<td>2398±1290</td>
<td>3.94±6.26</td>
<td>71.4±23.4</td>
<td>19.9±19.1</td>
<td>5/47</td>
<td>18/34</td>
<td>0/17/12</td>
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Table 2. Correlation analysis between NRL and skin score, DLCO, PAPs, activity index

<table>
<thead>
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<th>PAPs</th>
<th>Activity index</th>
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<tr>
<td>r value</td>
<td>p value</td>
<td>r value</td>
<td>p value</td>
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<tr>
<td>0.28</td>
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