29.6%, p=0.026) (Table 1.). No statistically significant differences were found in the percentages or the absolute numbers of T, B or NK cells.
Conclusions: Our data support previous reports indicating that depletion of lymphocyte in the PB of SSc patients. However, we found no significant difference in relation to lymphocyte subtypes, which differs from the literature data.
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Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.7028

AB0175 INHIBITORY EFFECT OF ENDOTHELIN-1 TYPE A RECEPTOR ANTAGONISTS ON MIGRATION OF NEUTROPHILS AND TUMOUR CELLS

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Background: Endothelin-1 type A receptor (ETAR) antagonists (e.g. ambrisentan) are currently approved by the U.S Food and Drug administration, representing a well-tolerated treatment of pulmonary arterial hypertension (PAH)[1] for patients with connective tissue diseases such as systemic sclerosis (SSc). Noteworthy, increased numbers of infiltrating neutrophils have been associated with worse clinical outcome in PAH patients. In another context, several studies have reported that endothelin-1 and its receptor ETAR also play a central role in the development of tumour cell invasion and metastasis. However, the effects of ETAR antagonists on migration of neutrophils and tumour cells remain to be determined.
Objectives: The objective was to analyse the effects of two ETAR antagonists on migration of neutrophils and tumour cell lines.
Methods: The migratory ability of peripheral neutrophils from healthy donors (HD) and different tumour cell lines (myeloid leukaemia HL60 cells and human pancreatic adenocarcinoma COLO357 cells) was analysed in response to N-Formylmethionyl-leucyl-phenylalanine (FMLP) or Protease-activated receptor 2 (Par-2) agonist. Because it has been shown before [2], IgGs from HD and SSc patients were used as additional stimulus for migration. Neutrophils and HL60 cells were preincubated (1h) with sitaxentan or ambrisentan, respectively, before being tested for migration (1h) using the Transwell assay. COLO357 cells were incubated (48h) in the presence of sitaxentan and migration was tested in the Oris Pro Cell assay. Migration was analysed by automatic cell counting or digital photo analysis and a migration index was calculated.
Results: Sitaxentan and/or ambrisentan significantly blocked the migration of neutrophils and tumour cell lines. In more detail, neutrophil migration in response to FMLP, being set to 100%, was completely inhibited by sitaxentan (0,46%). Further, neutrophil migration in response to IgGs from HD and SSc patients was induced equally, again being set to 100%. In the presence of sitaxentan migration was reduced to 60%, respectively. In DMSO-differentiated HL60 cells the migratory capacity in response to FMLP (100%) was reduced to 66% by ambrisentan and to 14% by sitaxentan. Moreover, in the presence of sitaxentan and a Par-2 agonist the migratory ability of COLO357 cells was significantly decreased to 89% compared to Par-2 agonist only, being set to 100%.
Conclusions: Our results suggest a pivotal and non-redundant role of ETAR in cell migration, which needs further clarification in order to repurpose the use of ETAR inhibitors. Therapeutic switching of ETAR antagonists from PAH to cancer therapies is a promising adjuvant therapy.
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Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.6173

AB0176 MITOCHONDRIAL DYSFUNCTION IN IDIOPATHIC INFLAMMATORY MYOPATHY DERIVED MYOBLASTS

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Background: Idiopathic inflammatory myopathies (IIM) are acquired skeletal muscle diseases, characterized by proximal muscle weakness. This syndrome includes five different (1) diseases, nevertheless, in this work, we included dermatomyositis (DM) and polymyositis (PM) patients. Has been reported that despite treating inflammation, muscle atrophy and weakness persist in some patients, suggesting an inherent muscle cause (2,3). In addition, histological studies show some mitochondrial abnormalities. Our aim was to evaluate a possible role for mitochondrial dysfunction in the pathophysiology of this diseases.
Objectives: To compare the mitochondrial status of myoblast obtained from myositis patients -and healthy control- biopsies.
Methods: Primary cultured myoblasts extracted from the deltoid of IIM patients were used and compared with myoblasts obtained from normal patients subjected to shoulder surgery. Also, a human skeletal muscle cell line (RCMH) was used as control. The bioenergetic profile was analyzed with an Extracellular flux analyzer^{e}96 (Seahorse Biosciences). Also, biopsy tissue was used for Western blot (WB) and immunofluorescence experiments.
Results: Basal oxygen consumption rate, ATP-linked oxygen consumption, maximal oxygen consumption and spare respiratory capacity were lower in IIM myoblasts when compared to RCMH myoblasts, however, when compare to control primary cultured myoblasts we only find differences in ATP-linked oxygen consumption. Expression levels of mitochondrial complexes (I, III, IV and V) were analyzed by WB in tissue samples. No differences were observed between control and IIM patients. Mitochondrial area was estimated by immunofluorescence of the voltage dependent anion channel (VDAC), which show no differences between control and patients.
Conclusions: IIM derived myoblasts present a compromised mitochondrial function, compared to control myoblasts. Specially, oxygen consumption associated with ATP synthesis show decreased levels in patients. Although, expression levels of the mitochondrial complexes as well as mitochondrial area were not different between control and patients. Future experiments should address if IIM mitochondria are consuming less oxygen because of a lower ATP demand or because a primary mitochondrial damage.
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Acknowledgements: FONDECYT 3150623 & 1151383; FONDAP 15150012.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2017-eular.3889

AB0177 INCREASED LEVELS OF THE INFLAMMATORY PROTEINS CXCL10, CXCL11, TNFR2 AND YLK-40 TYPIFY THE EARLIEST PHASE OF SYSTEMIC SCLEROSIS (SSC)

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Background: Definite systemic sclerosis (defSSc) patients yet lacking the prototypical signs of fibrosis stratify in an intermediate severity stage between pre-clinical and fibrotic, limited cutaneous (lcSSc) and diffuse cutaneous (dcSSc) phenotypical subsets[1].
Objectives: We aimed to molecularly position defSSc patients in respect to healthy controls (HC) and early SSc (EaSSc) patients with a broad panel of serum mediators of inflammation and tissue damage in an attempt to increase the knowledge in pathophysiologic mechanisms and biomarkers availability, thereby offering new ground for disease interception before fibrosis develops.
Methods: To this end, an 88-plex immunoassay was performed in sera from an identification cohort composed of 21 EaSSc according to LeRoy and Medsger criteria[2] without other signs and symptoms of evolutive disease, 15 defSSc patients according to the 2013 ACR/EULAR criteria[3] without skin or lung fibrosis and 11 HC. A larger cohort comprising 47 EaSSc, 48 defSSc and 43 HC was used for replication purposes. Fifty-one lcSSc and 35 dcSSc as comparison with established, fibrotic disease were recruited in parallel.
Results: Sixteen mediators differentially expressed in EaSSc and defSSc were selected for replication (one-way ANOVA and/or ANOVA polynomial test for trend with exploratory threshold $p<0.1$). Amongst these, after correction for multiple comparisons, CXCL10/IP-10, CXCL11/I-TAC, TNFR2 and CHI3L1/YKL-40 showed a significant upregulation in defSSc and EaSSc with a linear increase from HC to EaSSc to defSSc. The level of upregulation observed in defSSc individuals was similar (CXCL10/IP-10, CXCL11/I-TAC) or further increased (TNFR2, CHI3L1/YKL-40) in lcSSc and dcSSc patients. A set of 7 ranked markers (Angiopoietin-2, TNFR2, CXCL11/I-TAC, CXCL10/IP-10, sICAM-1, CHI3L1/YKL-40, CXCL9/MIG) provided a good visualization of the gradually increasing pattern from HC to EaSSc to defSSc to lcSSc and dcSSc.
Conclusions: This is the first attempt to validate circulating biomarkers defining the earliest phases of SSc. Despite the need for confirmation in a prospective