Disclosure of Interests: None Declared.
DOI: 10.1136/annrheumdis-2023-eular.1549

AB1560 QUADRICEPS FEMORIS MUSCLE PROPERTIES IN SARCOIDOSIS: FUNCTIONAL AND CLINICAL IMPLICATIONS

Keywords: Sarcopenia, Ultrasound, Lungs

R. Terlemez1, S. G. Kurtuldu2, B. Caliskaner Ozurt1, D. Palamar1, E. Atahan2, K. Akgun1. 1Istanbul University Cerrahpaşa, Cerrahpaşa Medical Faculty, Department of Physical Medicine and Rehabilitation, Istanbul, Turkey; 2Istanbul University Cerrahpaşa, Cerrahpaşa Medical Faculty, Department of Pulmonary Medicine, Istanbul, Turkey

Background: Sarcoidosis is a chronic disease which may involve muscular system subclinically at the onset of the disease. Sarcopenia is a musculoskeletal condition that may be associated with nonspecific symptoms in patients with sarcoidosis such as general weakness, arthralgia, reduced exercise capacity, and fatigue.

Objectives: This study aimed to determine the association between the functionality and the quadriceps femoris muscle (QFM) thickness measured using sonography in patients with sarcoidosis.

Methods: Thirty-one women with sarcoidosis and 27 controls were evaluated for the following outcomes: (i) handgrip strength, (ii) QFM thickness measured using ultrasound (US), and (iii) sonographic thigh adjustment ratio (STAR). The sarcoidosis group was also evaluated using the 30-second chair stand test (30s- CST) and fatigue severity scale (FSS).

Results: The QFM thickness and STAR values of the sarcoidosis group were significantly lower than those of the control group (p<0.001). However, no statistically significant difference was observed between the handgrip strengths of the groups (p=0.581). There was no statistically significant correlation between the STAR values and handgrip strength in the sarcoidosis group (p>0.05); however, there was a statistically significant positive correlation between the STAR values and 30s-CST (r=0.467, p=0.008).

Conclusion: Probable sarcopenia is one of the musculoskeletal conditions in patients with sarcoidosis that may be associated with nonspecific symptoms, such as general weakness, exercise intolerance, and fatigue. Although the handgrip test is a frequently used test, it may not show prominent findings in the early stages of the disease. Ultrasound appears to be an innovative tool for preventing sarcopenia as it helps detect changes in muscle mass and muscle quality at an early stage.

REFERENCES:

Acknowledgements: NIL.
Disclosure of Interests: None Declared.
DOI: 10.1136/annrheumdis-2023-eular.300

AB1561 COMPARISON OF DIAGNOSTIC PERFORMANCE OF TRUENAT™ M TB PLUS AND XPERT® ULTRA (GX) IN PATIENTS OF OSTEARTICULAR TUBERCULOSIS (OATB): EXPERIENCE FROM NORTH INDIA

Keywords: Diagnostic tests

K. Sharma1, A. Sharma2, A. Sharma3. 1Post Graduate Institute of Medical Education & Research, Chandigarh, Clinical Microbiology, Chandigarh, India; 2Government Medical College & Hospital, Chandigarh, MBBS Student, Chandigarh, India; 3Post Graduate Institute of Medical Education & Research, Chandigarh, Internal Medicine, Chandigarh, India

Background: Diagnostic delay and drug resistance not only worsen the outcomes of tuberculosis, but are also important impediments to TB elimination efforts. Prompt and accurate diagnosis of osteoarticular tuberculosis (OATB) along with simultaneous detection of drug resistance is crucial to decrease the morbidity and associated sequelae.

Objectives: Given the need for a near point-of-care test suitable for primary healthcare centers and simultaneous detection of resistance, TruenaT MTB Plus (TruPlus), a chip-based real-time polymerase chain reactionassay, was evaluated for the first time for diagnosis of OATB and detection of rifampicin resistance from pus and synovial fluid samples.

Methods: Total of 100 synovial fluid/pus samples (20 microbiologically confirmed OATB(culture-positive), 50 clinically confirmed OATB (culture-negative), and 30 control patients) were subjected to TruPlus assay and Xpert Ultra (GX Ultra) assay; and their performance was compared. Results were evaluated against both culture and composite reference standard.

Results: The overall sensitivity and specificity of TruPlus in diagnosing OATB was 77.14%(54/70) and 100%, respectively. The sensitivity was 90% (18/20) for microbologically confirmed cases and 72% (36/50) for clinically confirmed cases. Performance of TruPlus was superior to Xpert ultra (sensitivity = 70%). Overall, sensitivity and specificity of GX ultra was 70% and 100%. However, sensitivity of GX Ultra was 85% in culture confirmed cases and 84% (32/32) in clinically suspected cases of OATB. Both TruPlus and GX Ultra correctly reported Rifampicin resistance in four cases, when compared with phenotypic DST and rpoB gene sequencing.

Conclusion: TruPlus, with its greater portability and higher sensitivity than Xpert, could serve as an important tool for diagnosing OATB and rifampicin resistance at outreach endemic areas.

REFERENCES: NIL

Acknowledgements: NIL.
Disclosure of Interests: None Declared.
DOI: 10.1136/annrheumdis-2023-eular.4617

AB1562 NAIL FOLD CAPILLAROSCOPY IN EVALUATING INTERSTITIAL LUNG DISEASE OF RHEUMATOID ARTHRITIS, SYSTEMIC SCLEROSIS AND IDIOPATHIC TYPE

Keywords: Rheumatoid arthritis, Systemic sclerosis

S. Bashar1,2,3, K. Danwisch4, H. Abdel-Maksoud4, A. Abas5, M. Abdeilaty6. 1Suiz University, Faculty of Medicine, Suiz, Rheumatology, Cairo, Egypt; 2Suiz University, Faculty of Medicine, Suiz, Rheumatology, Cairo, Egypt; 3Azahar University, Chen, Asiat, Egypt; 4Azahar University, Chen, Asiat, Egypt

Background: Nail fold capillaroscopy (NFC) is a non invasive diagnostic tool to detect early changes of microcirculation of different collagen diseases as rheumatoid arthritis associated interstitial lung disease (RA-ILD), systemic sclerosis interstitial lung disease (SS-ILD) and idiopathic ILD (Ting et al., 2020).

Objectives: The study aimed to evaluate role of NFC in RA-ILD, SS-ILD and idiopathic ILD, and to determine if there is a correlation of it to disease activity. Methods: A case control study conducted on 100 patients with ILD, where 30 patients with RA-ILD, 30 patients with SS-ILD and 40 patients with idiopathic ILD, fulfilling ACR/EULAR criteria, 2013. They were examined clinically and radiologically. Pulmonary function tests (PFT) and NFC were done.

Results: Pleural irregularities were found in 42% of RA-ILD, 30% of SS-ILD where subpleural irregularities were found in 31% of RA-ILD and 46.7% of SS-ILD. Ground glass opacity was in 19% of RA-ILD, 76.7% in SS-ILD and70% in idiopathic –ILD. Honeycomb appearance was in 11.5% of RA-ILD, 30% in SS-ILD and 65% of idiopathic ILD. SS-ILD showed the highest capillary changes especially patients with pneumo. A significant correlation was found between NFC and PFT in idiopathic-ILD.

Conclusion: NFC is a sensitive and specific adjuvant tool in monitoring microvascular changes in rheumatologic diseases and can be used as assessment tool in severity of the disease.


Acknowledgements: NIL.
Disclosure of Interests: None Declared.
DOI: 10.1136/annrheumdis-2023-eular.5114

AB1563 CORRELATIONS BETWEEN LUNG INJURY AND PERIPHERAL VASCULAR MANIFESTATIONS IN PATIENTS WITH SYSTEMIC SCLEROSIS: A PRELIMINARY STUDY

Keywords: Lungs, Imaging, Cardiovascular disease

B. Ruan1, E. Baratella2, M. Confalonieri1, P. Confalonieri1, F. Salton1. 1Pulmonology Unit, Department of Medical Surgical and Health Sciences, Trieste, Italy; 2Radiology Unit, Department of Medical Surgical and Health Sciences, Trieste, Italy

Background: Systemic sclerosis (SSc) is a rare autoimmune disease characterized by the presence of vascular disease and tissue fibrosis. The alteration of vascular system in SSc is due to dysfunctions of fibroblasts and endothelial cells [1-4]. This dysfunction results in excessive collagen production and vascular damage, which are associated to multorgan damage. Lung disease in SSc is mainly characterized by interstitial lung disease (ILD) and pulmonary arterial hypertension (PAH). Transthoracic echocardiography is the most commonly used screening tool for PAH in patients with SSc, but definitive diagnosis requires confirmation by right heart catheterization (RHC) [4]. Numerous studies have demonstrated that nail fold videocapillaroscopy (VNC) provides an accurate assessment of microvascular damage in SSc and is able to predict internal organ involvement, such as lung damage.

Objectives: This work aims to evaluate possible correlation between lung injury and peripheral microvascular involvement in SSc patients.
**Methods:** We enrolled, after obtaining informed consent, 16 patients affected by SSc (classification criteria EULAR/ACR 2013) (3), who underwent cardiac catheterization for suspicion of PAH (3), in particular we paid attention to the measurement of pulmonary vascular resistance. NVC was performed in all patients; we collected information on the main capillaroscopic alterations such as number of capillaries, megacapillaries, avascular areas and microhemorrhages.

**Results:** After RHC evaluation, we identified 8 patients with PAH (F/M 6/2; median age 67 ± 7 SD years) and 8 without PAH (F/M 6/2; median age 66 ± 8 SD yrs). No significant differences regarding clinical and laboratoristic parameters were observed. Mean peripheral capillary density was significantly lower in PAH-SSc patients than in SSC patients without PAH (p = 0.04) and avascular areas were more frequent in the first group (p = 0.03). Furthermore, we evaluated a statistically significant correlation between the value of pulmonary vascular resistances at RHC and the number of capillaries at NVC (p = 0.04). We did not observe correlations with the other parameters.

**Conclusion:** This study confirms the correlation between peripheral microvascular alterations, evaluated by capillaroscopy and the involvement of internal organs, such as pulmonary circulation. Our findings provide additional evidence to the literature data but further studies are underway to confirm these preliminary data.

**References:**

**Acknowledgements:** NIL.

**Disclosure of Interests:** None Declared.

**DOI:** 10.1136/annrheumdis-2023-eular.5458

---

**Table 1. Mean age and mean PBP in MCTD, UCTD and HCs, as measured by laser speckle contrast analysis (LASCA).**

<table>
<thead>
<tr>
<th></th>
<th>MCTD</th>
<th>UCTD</th>
<th>HCs</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>59.8±14.2</td>
<td>51.2±15.9</td>
<td>57±11.7</td>
<td>n.s.</td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>132.3±78.2</td>
<td>138.7±87.5</td>
<td>202.8±59.3</td>
<td></td>
</tr>
<tr>
<td>Mean mean</td>
<td>131.5±80.1</td>
<td>139.2±90.7</td>
<td>203.9±60.9</td>
<td></td>
</tr>
<tr>
<td>Mean perfusion (thrum excluded)</td>
<td>85.4±3</td>
<td>100±55.5</td>
<td>146.9±4.4</td>
<td></td>
</tr>
<tr>
<td>Mean perfusion (thrum excluded)</td>
<td>85.3±5.1</td>
<td>99.2±55.7</td>
<td>145.4±45.9</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion:** These results may demonstrate a potential role of LASCA in assessing the vascular involvement of CTDs other than SSc. Further investigations on a larger and more homogeneous sample size and a focus on the possible correlations between PBP and the morphological microvascular damage assessed by nailfold videocapillaroscopy have been planned.

**References:**

---

**AB1564**

**PERIPHERAL BLOOD PERFUSION IN MCTD AND UCTD PATIENTS: A CROSS-SECTIONAL MONOCENTRIC STUDY**

**Keywords:** Imaging, Mixed connective tissue disease, Undifferentiated connective tissue disease

**A. Cerè1, E. Hysa1, A. Lercara1, A. Pinelli1, E. Gotti1, C. Pizzorni1, S. Paolino1, A. Sulli1, V. Smith1, M. Cutolo1.**

**Laboratory of Experimental Rheumatology and Academic Division of Clinical Rheumatology, Department of Internal Medicine (DiMI), University of Genova, IRCCS San Martino Polyclinic, Genova, Italy; 2Unit for Molecular Immunology and Inflammation, VIB Inflammation Research Center (IRC), Department of Internal Medicine, Department of Rheumatology, Ghent University Hospital, Ghent, Belgium**

**Background:** Connective tissue diseases (CTDs) are a heterogeneous group of autoimmune disorders and, among them, mixed connective tissue disease (MCTD) and undifferentiated connective tissue disease (UCTD) show overlap symptoms with other CTDs, but share secondary Raynaud’s Phenomenon (sRP) as a typical vascular symptom.[1,2] Laser speckle contrast analysis (LASCA) is a reliable tool to measure the peripheral blood perfusion (PBP) and has already demonstrated to be useful in detecting the peripheral microcirculation status of SSC patients and severe sRP.[3]

**Objectives:** To measure hand PBP in patients with sRP in CTDs (MCTD, UCTD) and to compare it with healthy controls (HCs).

**Methods:** Twenty-four CTDs patients with sRP (7 with MCTD, 17 with UCTD) and 28 age- and sex-matched HCs were evaluated during standard follow-up assessments. CTDs diagnoses were set up according to the international classification criteria.[3]

**Results:** Mean perfusion values in MCTD and UCTD patients were lower than in HCs, with a statistically significant difference for MCTD vs HCs (p=0.003). No significant differences were observed between UCTD vs HCs or MCTD vs UCTD.

**Conclusion:** This study confirms the correlation between peripheral microvascular alterations, evaluated by capillaroscopy and the involvement of internal organs, such as pulmonary circulation. Our findings provide additional evidence to the literature data but further studies are underway to confirm these preliminary data.

**Acknowledgements:** NIL.

**Disclosure of Interests:** None Declared.

**DOI:** 10.1136/annrheumdis-2023-eular.5596

---

**AB1565**

**IBD AND LIGAMENTOUS LAXITY ASSOCIATION**

**Keywords:** Diagnostic tests, Descriptive studies, Clinical trials

**C. Bentivenga1, A. Varani1, N. E. Politi1, E. R. Cosentino1, F. Rizzello2, C. Calabrese2, P. Gionchetti2, C. Borghi3, S. Orsola-Malpighi Polyclinic IRCCS, Medicina Interna Cardiovascolare-Orfani, Bologna, Italy; S. Orsola-Malpighi Polyclinic IRCCS, IBD Unit, Bologna, Italy**

**Background:** Inflammatory Bowel Disease (IBD) is a group of chronic relapsing-remitting diseases characterized by intestinal and extra-intestinal manifestations that unfavourably impact patients’ physical and mental quality of life. Recent evidence points to a possible higher incidence of Joint Hypermobility (JH) or “lignamentos hyperlaxity” in IBD patients compared to the general population and particularly in younger and female subjects with IBD. Lignamentos hyperlaxity represents a little-known benign clinical condition characterized in its asymptomatic form by joint and ligament hypermobility.

**Objectives:** The aim of this study is to determine the prevalence of lignamentos hyperlaxity in a cohort of patients with IBD.

**Methods:** We evaluated 130 patients afferent to the joint clinic of the “Cen tro Regionale per le Malattie Infiammatorie Croniche Intestinali “Massimo Campieri” e M Borghi”, located at “Sant’Orsola-Malpighi University Hospital in Bologna, in the period between June 2021 and November 2022, allocating them into 3 groups: 1) Ulcerative Colitis (UC), 2) Crohn’s Disease (CD), 3) Indeterminate Colitis (IC). None of the patients was affected by hereditary collagenopathies. Out of 130 patients, 47 were affected by Ulcerative Colitis (UC), 78 by Crohn’s Disease (CD) and 5 by Indeterminate Colitis (IC). The mean age at the time of the visit was 45.32 (±12.86 range 24-78) for patients with UC; 47.35 (±12.65 range 22-70) for patients with CD; 45.00 (±12.16 range 26-62) for patients with IC; in terms of sex: 47 men (20 with UC, 27 with CD, 0 with IC) and 83 women (27 with UC, 51 with CD and 5 with IC).

**Results:** 34 out of 130 patients presented lignamentos hyperlaxity according to Beighton’s criteria (pt ≥ 4) (26.2% of total, 16 UC, 17 CD, 1 IC). Of the 47 patients with UC, 16 had lignamentos hyperlaxity (34%). Of the 78 patients with CD, 17 had lignamentos hyperlaxity (21.8%). Of the 5 patients with IC, 1 had lignamentos hyperlaxity (20%). It emerges from this analysis that the highest prevalence of lignamentos hyperlaxity occurs in patients with UC, compared with CD and IC. Chi-square test for independence was performed by comparing the variable lignamentos laxity with the variables IBD, UC, CD and IC.

**References:**