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Background: Interstitial lung disease (ILD) is a common manifestation of connective tissue diseases (CTDs), and is associated with significant morbidity and mortality. Chest high-resolution computed tomography (HRCT) play an important role in the diagnosis of ILD and may provide prognostic information.

Objectives: We aimed to characterize the clinical profile and chest HRCT abnormalities and patterns of patients diagnosed with CTDs and ILD.

Methods: In this retrospective, observational study we included 80 consecutive patients with CTDs and ILD referred to a tertiary rheumatology center between 2015 and 2019. From hospital charts we collected clinical data, immunologic profile, chest HRCT findings. HRCT patterns were defined according to new international recommendations.

Results: Out of 80 patients, 64 (80%) were women, with a mean age of 55 years old. The most common CTD associated with ILD was systemic sclerosis (38.8%), followed by polymyositis (22.5%) and rheumatoid arthritis (18.8%). The majority of patients had dyspnea on exertion (71.3%), bibasilar inspiratory crackles were present in 56.3% patients and 10% had clubbing fingers. Antinuclear antibodies (ANA) were present in 78.8% patients, and the most frequently detected autoantibodies against extractable nuclear antigen were anti-Scl 70 (28.8%), followed by anti-SSA (anti-Ro, 17.5%), anti-Ro52 (11.3%) and anti-Jo (7.5%). Intravenous cyclophosphamide therapy for 6-12 months was used in 35% of patients, while 5% of patients were treated with mycophenolate mofetil.

The most frequent HRCT abnormalities were reticular abnormalities and ground glass opacity. Non-specific interstitial pneumonia (NSIP) was identified in 46.3% CTDs patients. A pattern suggestive of usual interstitial pneumonia (UIP) was present in 32.5% patients, mainly in patients with systemic sclerosis. In 21.3% patients the HRCT showed reticulo-nodular pattern, micronodules and other abnormalities, not diagnostic for UIP or NSIP pattern.

Conclusion: Nonspecific interstitial pneumonia (NSIP) is the most common HRCT pattern associated with CTDs. Further prospective longitudinal studies are needed in order to determine the clinical and prognostic significance of various HRCT patterns encountered in CTD-associated ILD and for better patient management.

References:

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AB0606

SYSTEMIC SCLEROSIS – ARE PATIENTS WITH CALCINOSIS DIFFERENT FROM THOSE WHO DO NOT HAVE IT?

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Background: Systemic Sclerosis (SS) is a heterogenous disease with a broad range of organ involvement. Calcinosis is a common problem and although it may affect almost any body tissue, it is typically seen in the limbs.¹ Its presence relates with higher risk of digital ulcers and infection.² It is still unknown whether patients with calcinosis also have other clinical features that differentiate them from the remaining.

Objectives: To determine the prevalence of calcinosis in a SS cohort and to evaluate if its presence relates with specific clinical features.

Methods: A cross-sectional study was conducted evaluating a cohort of SS patients. Plain radiographs were taken to assess calcinosis at elbows, hands, knees and feet. Clinical data was obtained and analyzed using IBM SPSS Statistics 26®.

Results: We included 25 patients, 21 females [n= 21 (84%)], median (min, max) age was 58 (27, 75) years-old. Regarding disease classification, 16 (64%) had limited SS, 4 (16%) had diffuse SS, 3 (12%) had overlap syndrome and 2 (8%) had early SS. Ten (40%) patients had radiological calcinosis in at least one site, seven of which (70%) were subclinical. The most affected areas were knees and hands [n=6 (24%)]. Table 1 summarizes the clinical characteristics of patients with and without calcinosis. Limited SS was significantly more prevalent in the calcinosis group [n=9 (90%) vs. n=7 (46.7%), p=0.04]. All patients had Raynaud phenomenon [n=10 (100%) vs. 15 (100%)]. Current or past digital ulcers [n=5 (50%) vs. n=6 (40%), p=0.697], telangiectasias [n=9 (90%) vs. n=11 (73.3%), p=0.615], pulmonary hypertension [n=2 (20%) vs. n=1 (6.7%), p=0.550] and esophageal involvement [n=6 (60%) vs. n=6 (40%),

p=0.428] were more frequent in the calcinosis group but with no statistical significance. Although late capillaroscopic pattern was more frequent in the calcinosis group, there was no statistical significance difference [n=4 (40%) vs. n=1 (6.7%), p=0.121]. Seropositivity for centromere-B antibodies was more frequent in the calcinosis group but with no statistical significance [n=7 (70%) vs. n=8 (53.3%), p=0.678].

Table 1. Demographic and clinical data of patients with and without calcinosis.

Demographic and clinical data	Calcinosis (n=10)	No calcinosis (n=15)	p-value
Female gender, n (%)	9 (90)	12 (80)	0.626
Age (years), median [min,max]	68.5 [27, 75]	52 [36, 73]	0.129
<i>Cutaneous classification</i>			
Limited, n (%)	9 (90)	7 (46.7)	0.04
Diffuse, n (%)	1 (10)	3 (20)	0.626
Early, n (%)	0 (0)	2 (13.3)	0.500
Overlap, n (%)	0 (0)	3 (20)	0.250
<i>Clinical manifestations</i>			
Current or previous digital ulcers, n (%)	5 (50)	6 (40)	0.697
Interstitial lung disease, n (%)	2 (20)	4 (26.7)	1.000
Pulmonary hypertension, n (%)	2 (20)	1 (6.7)	0.550
Arthritis, n (%)	2 (20)	3 (20)	1.000
Calcinosis, n (%)	3 (30)	0 (0)	0.052
Esophageal involvement, n (%)	6 (60)	6 (40)	0.428
<i>NFC patterns</i>			
Non specific abnormalities, n (%)	1 (10)	3 (20)	0.626
Early scleroderma, n (%)	1 (10)	1 (6.7)	1.000
Active scleroderma, n (%)	3 (30)	10 (58.8)	0.111
Late scleroderma, n (%)	4 (40)	1 (6.7)	0.121
<i>Autoantibodies</i>			
Centromere B, n (%)	7 (70)	8 (53.3)	0.678
Scl-70, n (%)	1 (10)	4 (26.7)	0.615

Conclusion: The prevalence of calcinosis was similar to that reported in literature (18-49%). This study confirmed the association, already found in previous studies, between calcinosis and the limited form of SS and raises attention for the importance of calcinosis radiographic screening since there was a high prevalence of subclinical calcinosis.¹ Although there were some clinical differences between patients with and without calcinosis, given the small cohort, statistical significance was not obtained. Larger studies are needed to increase statistical power.

References:

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AB0607

MYOSITIS-RELATED INTERSTITIAL LUNG DISEASES: CLINICAL FEATURES, BIOMARKERS AND AUTOANTIBODIES IN LATINOAMERICAN PATIENTS

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Background: The lung is one of the most common extra-muscular targets in idiopathic inflammatory myopathies (IIM) and interstitial lung disease (ILD) is a prevalent and often devastating manifestation of IIM¹.

Objectives: To know the frequency of autoantibodies associated with IMM-ILD, biomarkers, and their relation with clinical features in patients with IIM.

Methods: Adults with IIM were enrolled in a retrospective way. Demographics, clinical and laboratory features were registered. The determination of antibodies was performed by the Immunoblot technique with Euroimmun kit. Patients without a myositis antibody panel were excluded. The diagnosis of ILD was based on HRCT. Patients with anti-MDA5 antibodies and with anti Ro-52 antibodies associated with anti-ARS were considered as high risk group, those with anti-ARS, anti-U1-RNP, anti-PM/ Scl and anti-Ku antibodies as moderate risk and those with anti-Mi2, anti SRP and anti TIF1 antibodies as low risk².

Results: Demographics characteristics are shown in table 1. We included 36 patients. Dermatomyositis (DM) was described in 69.4%, polymyositis (PM) in 16.7% and antisynthetase syndrome (AAS) in 13.9%. Out of the total of our patients, 30.6% had interstitial lung disease. The most frequent autoantibody was Anti Ro52 in 13 (36.1%) patients and 44.4% were in the high risk group. We analyzed our patients by the presence or absence of ILD and we found that