The occurrence of childhood IgAV thus signifies the presence of a sustained predisposition to illness.

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Objectives: To describe the clinical, serological and radiological features of ILD associated with IgAV in a tertiary referral hospital.

Methods: A cross-sectional study of patients attending the rheumatology and respiratory clinics of the University of Western Australia between October 2017 and August 2018. Clinical, serological and radiological features were documented. We compared features of 3 groups of patients: IgAV, rheumatoid arthritis (RA), systemic sclerosis (SSc) and “Other” autoimmune rheumatic diseases (OARD) which included Idiopathic Pulmonary Fibrosis, Sarcoidosis, Sjogren’s Syndrome and overlap syndromes. Factors associated with Usual Interstitial Pneumonia (UIP) were sought by univariate and multivariate analysis. P-values < 0.05 were considered statistically significant. Analyses was performed with STATA 14.0 (Stata Corp LP, USA).

Results: Of 124 patients, 29.8% had RA, 25.8% SSc and 44.4% OARD. Most patients were female (86.3%), of mixed racial ancestry (75.0%), and the median (IQR) age was 55 (46-66). Over one-third were smokers, 22.6% had emphysema, 21.4% had one or more previous pulmonary tuberculosis (PTB) infections, smoking, emphysema, and previous PTB were higher in RA group but the difference was not statistically significant. All SSc patients and more than two-thirds of RA and OARD patients had gastroesophageal reflux disease (GORD).

Similar to reports elsewhere, Nonspecific interstitial pneumonia (NSIP) was the commonest ILD (63.7%), followed by UIP (26.6%) and other patterns (9.7%). Contrary to other reports, we found similar frequencies of NSIP and UIP patterns in patients with RA. RA patients were significantly older (median IQR) age at ILD onset 62 (55-68) years, compared to SSc (49 (38-56) and OARD (42 (33-56) p < 0.001). The percentage of predicted Forced Vital Capacity (FVC) were significantly worse in SSc and RA groups and DLCO in OARD. RA diagnosis (OR 3.8, 95% CI 1.5-9.5), older age (OR 1.1, 95% CI 1.0-1.1), COPD (OR 3.2, 95% CI 1.4-8.0), longer ARD-ILD interval (hفر فوق (OR 1.0, 95% CI 1.0-1.1) and previous Methotrexate (MTX) use (OR 2.6, 95% CI 1.6-6.0) were significantly associated with UIP. Multivariate analysis showed that only COPD and previous MTX use was associated with UIP (OR 2.8, 95% CI 1.0 – 1.0) and (95% CI 1.0-1.0 respectively). Regarding MTX exposure, 37.1% of patients were prescribed MTX before ILD diagnosis, and 33.9% continued, started or restarted after ILD diagnosis.

Conclusion: ILD was most commonly diagnosed in RA and SSc, with NSIP seen most frequently overall. RA patients presented better Pulmonary function tests despite higher frequency of UIP. The use of MTX does not seem to be associated with the development of acute pulmonary insufficiency in patients with ILD.

References:

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SAT0596

ASSOCIATIONS BETWEEN CIRCULATING LIPID MEDIATORS AND INCIDENT INFLAMMATORY ARTHRITIS IN AN AUTO-CITRULLINATED PROTEIN ANTIBODY POSITIVE POPULATION

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Background: Peripheral blood lipid mediator levels were associated with progression to inflammatory arthritis (IA) in a previous small prospective study. We hypothesized that higher peripheral blood lipid mediator levels would be associated with incident IA in a large prospective population.

Objectives: To evaluate incident IA risk associated with lipid mediator levels.

Methods: Serum lipid mediator levels were measured at baseline and year 1 in the Etiologies of Rheumatoid Arthritis (SERA). Using a Cox Proportional Hazards model, we evaluated incident IA (IA confirmed by rheumatologist) risk associated with lipid mediator levels at baseline and year 1, adjusting for baseline demographic and disease characteristics.

Results: Median lipid mediator levels were lower at year 1 compared to baseline (p < 0.01). Higher baseline levels of 5S-HETE, an important precursor to pro-inflammatory leukotrienes, was associated with subsequent IA. Our findings highlight the potential of circulating levels of 5S-HETE, an important precursor to pro-inflammatory leukotrienes, as biomarkers for predicting incident IA.

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SAT0597

EARLY DAMAGE AS MEASURED BY SILCC/ACR DAMAGE INDEX IS A PREDICTOR OF HOSPITALIZATION IN SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Background: Increased early damage is associated with increased risk of hospitalization in SLE. The ACR Damage Index (ACRDI) has been primarily used in lupus cohorts. The SILCC damage index was developed specifically for lupus cohorts with a focus on early damage.

Objectives: To compare hospitalization rates for ACRDI and SILCC damage index in a lupus cohort.

Methods: We performed a nested case-control study of 65 lupus patients who were admitted to hospital for any reason during the study period. Cases were patients who were admitted for SLE flare or complications of SLE. Controls were the same cases matched for age and sex. Cases and controls were then matched for total damage score computed using the ACRDI and SILCC damage index as the denominator.

Results: Of 65 lupus patients, 31 were admitted to hospital. Of these, 9 were cases and 22 were controls. Of 31 hospital admissions, 12 were for SLE flare and 19 for complications of SLE. The mean total damage score was 8.31 ± 4.35 for cases and 8.46 ± 3.02 for controls. The mean ACRDI was 1.21 ± 1.15 for cases and 1.19 ± 1.15 for controls. The mean SILCC score was 1.26 ± 1.14 for cases and 1.22 ± 1.15 for controls. The ACRDI was significantly higher in cases than in controls (p = 0.003). The SILCC score was also significantly higher in cases than in controls (p = 0.009). When comparing hospital admissions, cases had a higher mean ACRDI (1.73 ± 1.20) than controls (1.11 ± 0.80, p = 0.01). When comparing hospital admissions, cases had a higher mean SILCC score (1.79 ± 1.25) than controls (1.11 ± 0.80, p = 0.01). More cases were admitted for SLE flare than for complications of SLE (72.2% vs 27.8%, p = 0.04).

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