Figure 3. The mRNA expression of Tyro3TK on CM is increased in RA. (a) The mRNA expression of Tyro3TK on NCM, IM, and CM in HC (n = 3) and RA (n = 3) patients. (b) The mRNA expression of MerTK on NCM, IM, and CM in HC (n = 3) and RA (n = 3) patients. ***P* < 0.01.

Conclusion: These findings indicate that Tyro3TK on CM was elevated in RA patients and correlated positively with disease activity, which may serve as an important participant in RA pathogenesis.

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Figure 4. Correlation analysis of Tyro3TK on IM and CM with RA patient clinical manifestations. The associations of Tyro3TK on IM ($r = 0.492$, $P = 0.001$) (a) and CM ($r = 0.577$, $P = 0.0001$) (b) with RA patient swollen joint counts (SJC) were analyzed, respectively. The expression of Tyro3TK on IM and CM were also compared between different RA patient groups: (c) RA with high disease activity (DAS28-ESR > 3.2) and non-high disease activity (DAS28-ESR ≤ 3.2), (d) RA with and without swollen joints, (e) tender joints. **P* < 0.05, ***P* < 0.01.

Disclosure of Interests: None declared

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AB0047

CLINICAL AND RADIOLOGICAL CHARACTERISTICS AND TREATMENTS OF A COHORT OF PATIENTS WITH RHEUMATOID ARTHRITIS AND DIFFUSE INTERSTITIAL PULMONARY DISEASE FOLLOWED AT THE VIRGEN MACARENA UNIVERSITY HOSPITAL

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Background: Diffuse interstitial lung disease (ILD) is an extra-articular manifestation of rheumatoid arthritis (RA)^{1,2}. The most common pattern is the usual interstitial pneumonia (UIP), conditioning a worse prognosis³.

Objectives: To describe epidemiological, clinical, and radiological characteristics and treatment used in a cohort of patients diagnosed with RA and ILD.

Methods: Retrospective descriptive study, including patients with a diagnosis of RA and ILD, reviewed in the Rheumatology and Pneumology consultations of the Virgen Macarena University Hospital, from 2010 to 2019. Data obtained from medical records are analyzed. SPSS statistical software is used.

Results: 26 patients were included, 18 women (69.2%). Median age at diagnosis of ILD was 62 years (53-73). Twelve patients (46.6%) used to smoke. The mean time from RA diagnosis to ILD diagnosis was 79 months (8-264). The RF was positive in 91.3% cases (21) and 87% of them (20) were ACPA positive. Fourteen patients (53.8%) had erosions and 3 (11.5%) had an associated Sjögren's Syndrome. When ILD was diagnosed, the RA activity by DAS28PCR was moderate (3.28; 2.34-3.28) and 13 patients (54.1%) suffered from dyspnea. The mean value of FVC and DLCO in the first assessment was 84% (63-108) and 71.7% (64-86), respectively. The most frequent radiological pattern of ILD was NINE in 15 patients (57.7%), 6 of them (23.1%) had UIP and 5 (19.3%) presented other patterns. Prior to ILD diagnosis, 24 (92.3%) patients received oral glucocorticoids, 18 (69.2%) cases started treatment with c-DMARD and 11 (42.3%) of them with b-DMARD; the most widely used were methotrexate (MTX) in 17 patients (65.4%) and anti-TNFα in 10 (38.5%). After diagnosis, treatment was changed to 12 patients (46.6%); the most used DMARD was leflunomide, in 11 (42.3%), MTX was maintained in 7 patients (26.9%); the number of anti-TNFα used decreased to 4 cases (15.4%), using instead drugs such as rituximab 5 (19.2%), abatacept 3 (11.5%), baricitinib 2 (7.7%) and anti-IL6 2 (7, 7%). During follow-up, 11 cases (57.9%) remained radiologically stable. A slight deterioration in DLCO was observed (66%; 51-80) and there was one death due to lung disease (UIP).

Conclusion: In this study, the most frequent radiological pattern was NINE. Half of the patients used to smoke. At the diagnosis of ILD (at ILD diagnosis), dyspnea was the most relevant clinical symptom, with a slight deterioration in the respiratory function tests. This represented a change in the therapeutic strategy.

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AB0048

ENZYMATIC PATTERN OF CIRCULATING PRO- AND ANTIOXIDANT ENZYMES IN RHEUMATOID ARTHRITIS PATIENTS

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Background: Rheumatoid arthritis (RA) is an autoimmune rheumatic disease of unknown etiology characterized by chronic erosive arthritis and systemic organ involvement resulting in early disability and shorter life expectancy. Neutrophils are suggested to play a substantial role in the induction and promotion of autoimmune inflammation in RA. This ability can be based on newly discovered feature of neutrophils to release neutrophil extracellular traps (NETs) during specific type cell death called NETosis. Hyperproduction of reactive oxygen species (ROS) is one of the factors promoting NETs production. With this background, the study of pro- and antioxidant enzymatic activities in RA patients can be of great interest.

Objectives: To assess plasma activities of essential prooxidant and antioxidant enzymes in RA patients.

Methods: The research was carried out in agreement with the WMA Declaration of Helsinki principles. 71 RA patients (46 women and 25 men) were enrolled in the study. The diagnosis was verified using ACR/EULAR criteria (2010). RA activity was measured using the Disease Activity Score of 28 joints (DAS28). 30 healthy persons comprise control group. Plasma xanthine oxidase (XO; EC 1.173.2), xanthine dehydrogenase (XDH; EC 1.17.1.4) and superoxide dismutase (SOD; EC 1.15.1.1) activities were measured using spectrophotometric technique. XO and XDG activities were expressed as nmol/ml/min, SOD activity – as units of action. Statistical analysis was performed using Statistica 6.0 software package. Differences were considered significant when *p* < 0.05. Reference ranges were calculated as means ± 2SD.

Results: Mean age of patients was 43.2±3.6 years, mean RA duration was 11.9±2.6 years. 24 (33.8%) RA patients had low disease activity, and 6 (8.5%) patients had high one. Extra-articular manifestations were found in 30 (42.2%) patients. 30% of them had cardiovascular involvement, 23.3% – pulmonary lesions, and 23.3% had renal involvement. Reference ranges for XO, XDG, and SOD activities were 2.28-5.12 nmol/min/ml, 3.96-7.24 nmol/min/ml, and 3.13-6.58 units, respectively. We examined activities of these enzymes in circulation