

cases occurred both early and lately during treatment courses, suggesting LTBI screening failures, treatment non-adherence or re-exposure. Current application and content of the protocol for screening and treatment of LTBI needs to be reviewed.

## REFERENCES

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### SAT0124 MOLECULAR CHARACTERIZATION OF THE SERUM PROFILE ASSOCIATED TO THE INCREASED CARDIOVASCULAR RISK IN RHEUMATOID ARTHRITIS PATIENTS. EFFECTS OF BIOLOGICAL DRUGS.

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#### Background:

**Objectives:** 1- To characterize the serum molecular profile associated to the increased cardiovascular (CV) risk in Rheumatoid Arthritis (RA) patients. 2- To evaluate the *in vivo* and *in vitro* effects of biological drugs on the reestablishment of this altered molecular profile.

**Methods:** Serum samples of 280 RA patients and 100 healthy donors (HD) were studied. miRNomes were identified using next-generation sequencing miRNA assay (HTG EdgeSeq technology). The inflammatory profile, Netosis-derived products, and circulating biomolecules related to oxidative stress were quantified using commercial kits. The Cardiovascular Risk SCORE for RA patients was calculated following EULAR recommendations. Carotid intima-media thickness (CIMT) was evaluated as early atherosclerosis marker. The *in vivo* effects of biologic drugs such as Infliximab (IFX), Tocilizumab (TCZ) and Rituximab (RTX) were evaluated before and after 6 months of therapy in 45, 20 and 25 RA patients, respectively. Serum from RA patients with high and low CV risk scores - either before and after IFX, TCZ and RTX therapies-, were further added to HUVECs, monocytes, and neutrophils purified from HD, and activity profiles were evaluated.

**Results:** The miRNA whole transcriptome assay identified 104 circulating miRNAs altered in RA patients. Functional classification (IPA) established their involvement in inflammatory response, as well as in immunological

and hematological diseases. Circulating biomolecules related to inflammation -interleukins, chemokines, adhesion molecules-, Netosis -cell-free nucleosomes, elastase and DNA- and oxidative stress -lipoperoxides, nitrated proteins, and total antioxidant capacity- were also found coordinately altered in the serum of RA patients. Multivariate analyses showed that levels of a number of those altered biomolecules and circulating microRNAs were predictors of a high Cardiovascular Risk SCORE and the presence of a pathologic CIMT in RA patients.

The *in vivo* treatments with IFX, TCZ and RTX for six months reduced disease activity and induced the re-establishment of normal levels in those altered biomolecules in RA patients. Mechanistic *in vitro* studies showed increased pro-inflammatory profiles of leukocytes subsets and HUVECs after treatment with serum from high CV risk score-RA patients. These profiles were reversed by incubation with serum from those patients after biologic drugs treatment.

**Conclusion:** 1. Specific mediators of inflammation, oxidative damage and Netosis, along with the microRNAs modulating their expression, coordinately contribute to the higher CV risk score present in RA patients. 2. Biologic drugs such as IFX, TCZ and RTX, restore the normal levels of these altered biomolecules, reducing the CV risk in RA patients.

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### SAT0125 LONG-TERM SAFETY WITH SARILUMAB PLUS CONVENTIONAL SYNTHETIC DISEASE-MODIFYING ANTIRHEUMATIC DRUGS AND SARILUMAB MONOTHERAPY IN RHEUMATOID ARTHRITIS: AN INTEGRATED ANALYSIS WITH 9,000 PATIENT-YEARS OF FOLLOW-UP

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**Background:** Sarilumab, a human IL-6R blocker approved for the treatment of RA, has shown efficacy as monotherapy and in combination with csDMARDs in Phase 3 trials.

**Objectives:** We assessed long-term safety from the sarilumab clinical development program in adult patients with RA who received subcutaneous (SC) sarilumab in eight clinical trials and their open-label extensions: MOBILITY (NCT01061736), TARGET (NCT01709578), ASCERTAIN (NCT01768572), EASY (NCT02057250), COMPARE (NCT01764997), ACT11575 (NCT01217814), MONARCH (NCT02332590), ONE (NCT02121210), and the open-label extension EXTEND (NCT01146652).

**Methods:** Data (cut-off Jan 15, 2018) were pooled from patients on sarilumab+csDMARD (N=2887) or sarilumab monotherapy (N=471). Patients had received sarilumab 200 mg or 150 mg q2w SC, except for 151 patients from MOBILITY Part A who received 100 mg qw, 150 mg qw, or 100 mg q2w. Treatment-emergent (TE) adverse events (AEs), AEs of special interest (AESIs), and discontinuations were assessed.