After RA diagnosis, 22.5% (55), 43.4% (106) and 3.3% (8) of patients were diagnosed with AHT, DL and DM. Delay in time to diagnosis was significantly associated with AHT, DL and DM diagnosis after RA diagnosis.

Conclusions: A higher inflammatory load, such as that accumulated in RA patients who have delayed the start of treatment, is associated with a higher probability of developing CVRF, which are associated with the appearance of vascular structural damage in the long term. These results are consistent with the effect of inflammatory cytokines on peripheral tissues (increased lipolysis in adipose tissue, increased insulin resistance, increased arterial stiffness).

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Disclosure of Interest: None declared

AB0381 CLINICAL AND RADIOGRAPHIC CHARACTERISTICS OF AIRWAY DISEASE IN PATIENTS WITH RHEUMATOID ARTHRITIS
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Background: Airway disease (AD) has drawn attention both clinically and etiological in rheumatoid arthritis (RA), but it is still poorly understood.

Objectives: We aim to elucidate the clinical and radiographic characteristics of AD in patients with RA.

Methods: We retrospectively reviewed high-resolution computed tomography (HRCT) images and clinical data of 131 consecutive RA patients in whom HRCT were scanned for clinical purposes and screening. Overlap patients with other colagen tissue diseases and patients complicated with active infection or lung cancer were excluded. Patients who had a history of drug-induced lung disease, thoracic radiation, or exposure to dust were also excluded. HRCT images were reviewed independently by a pulmonologist and a radiologist in blind fashions.

Results: The mean age of the patients was 65 years old, the mean disease duration of the patients was 123 months, 69% of the patients were women, and 42% of the patients had past/current histories of smoking. The mean Disease Activity Score 28 (DAS28)-erythrocyte sedimentation rate (ESR) value was 2.87. AD and ILD were observed in 53 (40%) and 36 (27%) patients, respectively, and both in 19 (15%) patients. AD and ILD were not significantly associated (p=0.11). By multivariate logistic regression analyses, the risk factors for AD and subtypes of AD were identified by multivariate logistic regression analyses. The results are as follows:

Discourse of Interest: None declared

AB0382 RAPAMYCIN SELECTIVELY INCREASES CIRCULATING TREG CELLS AND MAINTAINS REMISSION OF PATIENTS WITH RHEUMATOID ARTHRITIS
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Background: It is thought that Rheumatoid arthritis (RA) arises from a breakdown in immunological self-tolerance. We have given direct evidence for this concept that absolute number of peripheral CD4+ Regulatory T-cells (Tregs) decreased in RA patients[1]. Furthermore, rapamycin can significantly induce immune tolerance through up-regulate Tregs and down-regulate Th17 cells[2].

Objectives: To investigate the effect of rapamycin on the absolute numbers of Th17 and Treg cells and on maintenance of disease remission in RA patients instead of DMARDs.

Methods: Thirty-two patients, who achieved remission (DAS28 ≤2.6) by the treatment with two kinds of DMARDs for more than half a year, received rapamycin at a dose of 0.5 mg every other day for 12 weeks. Before and after treatment with rapamycin, the disease activity and immunological assessments of them were performed. In this study, BD Trucount tubes with the lymphopellet of a known number of internal counting beads were used for determining absolute counts of total CD4+ T cells in peripheral blood and then calculating the absolute number of Th17 cells and CD4+ Tregs.

Results: At week 12, 65.6% of the patients maintained remission (DAS28 ≤2.6). The DAS28 was increased from a median of 2.03(at week 0) to 2.15(at week 12) (p<0.05). The absolute number of Treg cells was increased significantly from a median of 22.16(at week 0) to 32.19(at week 12) (P=0.039). The absolute number of Th17 cells was decreased from a median of 0.386(at week 0) to 0.56(at week 12) (p=0.05). The ratio of Th17/Treg cells was also decreased from a median of 0.245 (at week 0) to 0.19(at week 12) (p<0.05). At the same time, the mean dosage of prednisone decreased from 6.29 mg/d to 5.35 mg/d and that of DMARDs were also reduced from 93.75% to 56.25%.

Conclusions: Rapamycin was effective in the maintenance of remission (DAS28 ≤2.6) by increase of Treg cells and correcting the imbalance of Th17/Treg cells. Meantime, the mean dosage of conventional drugs such as glucocorticoid and DMARDs gradually decreased. In the future, rapamycin may replace current immunosuppressant for treatment of RA.

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AB0383 CHANGES OF METABOLIC BIOMARKER LEVELS UPON ANTI-TNF THERAPY IN RHEUMATOID ARTHRITIS PATIENTS
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Background: Rheumatoid arthritis (RA) has been associated with cardiovascular disease and metabolic syndrome. Numerous pro-inflammatory cytokines (e.g. TNF-α, IL-1, IL-6) are released, which cytokines cause increased reactive oxygen species (ROS) production and thereby contribute to the increased lipid peroxidation and reduction of many antioxidants. These processes not only lead to the deterioration of joints and other tissues but may also contribute to comorbidities, such as atherosclerosis.

Objectives: The aim of this study was to assess the effects of anti-TNF therapy on different metabolic markers, such as PON1 (paraoxonase 1), arylesterase, chemerin and adiponectin. We also investigated whether these biomarkers correlated with various demographic, clinical and laboratory markers.