Results: In TRACK study, 39 participants with RA and T2D (age 62.72 ± 9.97, 74.4% female gender) were randomised to anakinra or to TNFi; the majority of participants had seropositive RA disease (rheumatoid factor and/or ACPA 70.2%) with active disease (DAS28 5.54 ± 1.03; C-reactive protein 11.84 ± 9.67 mg/L, respectively) and all participants had T2D (HbA1c: 7.77 ± 0.70, fasting plasma glucose: 139.13 ± 42.17 mg). Considering the last available observation, a maintenance of reduced levels of HbA1c was observed in anakinra-treated participants (Baseline: 7.73% ± 0.67; 6 months: 6.70% ± 0.67; last follow-up: 6.60% ± 0.52). Paralleling with HbA1c, a significant reduction of dosages of antidiabetic therapies was observed in anakinra-treated patients, with a percentage of patients who discontinued any anti-diabetic therapy. Conversely, an intensification of antidiabetic therapies was reported in TNFi-treated participants. Concerning RA, the clinical response was maintained during the whole follow-up, although a larger percentage of anakinra-treated participants discontinued the concomitant steroids therapy.

Conclusion: In this study, we observed the benefit of IL-1 inhibition in patients with RA and T2D, reaching the therapeutic targets of both diseases, which lasted longer than first 6 months of follow-up. Although the limitations due to open-label design and the necessity of further confirmatory studies, our results could suggest the concept that IL-1 inhibition may be considered a targeted therapeutic strategy for RA and T2D.

References:

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THU0150 INTERSTITIAL LUNG DISEASE RELATED TO RHEUMATOID ARTHRITIS. WHAT DO WE DON'T KNOW? THE LIRA STUDY (LUNG INVOLVEMENT IN RHEUMATOID ARTHRITIS).

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Background: Interstitial lung disease (ILD) is one of the more frequent and potentially severe extra-articular manifestation of rheumatoid arthritis (RA). ILD significantly decreases the survival and quality of life of patients and influences the treatment approach to the patient. Despite its clinical relevance, the prevalence, incidence and survival of RA-ILD is not even collected.

Objectives: To assess the incidence of ILD in patients with Rheumatoid Arthritis (RA) treated with JAKI.

Methods: Method: We conducted a systematic literature review searching in Medline, Embase and Cochrane. The final date was set on December 31, 2019, and only articles in English were included. See the following terms: rheumatoid arthritis, herpes zoster and the different JAK kinase inhibitors studied: tofacitinib, baricitinib, upadacitinib, filgotinib, peficitinib and decernotinib. Conference abstract, case series and clinical practice records were excluded. Only phase II and phase III clinical trials were included, as well as extension studies, with the following criteria:

- Patients diagnosed with RA according to the American College of Rheumatology Criteria and/or EULAR criteria.
- Drugs evaluated: tofacitinib, baricitinib, upadacitinib, filgotinib, peficitinib or decernotinib, all of them compared with placebo.
- Safety data on ILD infection.

The search included a total of 2521 publications of which 504 were duplicated, leaving 143 fully reviewed. At the end 42 papers were included in the review.

The main objective of our study was the number of ILD infections depending on the doses of the drug administered, as well as with placebo.

Data collected from each study was: Author and year of publication of the study, study design and population included, number of patients treated, treatment administered and percentage of patients treated for ILD in each treatment arm.

Results: In clinical trials of these drugs, a greater number of opportunistic infections due to varicella zoster virus have been identified compared to placebo, which leads to the appearance of ILD. The role of different JAKs in the immune response may suggest differences in safety profiles between these drugs, which could have clinical implications. Therefore, we analyze the results separately for each JAK.

Tofacitinib Of the 14 selected works, 4 are phase II, 8 phase III and 2 extension studies. We observe that the incidence of ILD ranges between 1% and 11%, the latter being the case of the Wollenhaupt extension study with a data collection period of nine and a half years. It is remarkable that in some of the studies included in this review there was no case of ILD and in others this information was not even collected.

Baricitinib Two phase II studies, 6 phase III studies and one extension study were analyzed, with an incidence of ILD between 1% and 8%, data similar to those obtained with tofacitinib.

Upadacitinib. An incidence of ILD between 1% and 4% was observed according to the 6 clinical trials (two phase II studies and four phase III studies) published as clinical product development.

Filgotinib Data similar to upadacitinib, with frequencies between 1% and 4% of ILD according to the studies (three phase II studies and one phase III study).

Peficitinib. The incidence of ILD ranged between 4% and 5% (three phase III studies, two phase III studies, and one extension study).

Decernotinib. There are only published phase three II trials, of short duration and with only four cases collected from ILD.

Conclusion: Conclusions: Opportunistic ILD infection have been reported between 1% and 11% in JAKI clinical trials. The results of the included studies seem to suggest that selective JAK1 inhibitors (Upadacitinib and Filgotinib) develop ILD as a treatment complication less frequently than other JAKI, but more studies are needed to support this conclusion.

Disclosure of Interests: Carmen Olga Sánchez González: None declared, Juan Carlos Nieto Speakers bureau: Pfizer, Abbvie, MSD, Novartis, Janssen, Lilly, Nordic Pharma, BMS, Gebro, FAES Farma, Roche, Sanofi DOI: 10.1136/annrheumdis-2020-eular.3278