SEX-RELATED DIFFERENCES IN THE EFFECTIVENESS OF JANUS KINASE INHIBITORS IN RHEUMATOID ARTHRITIS TREATMENT



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Background and importance

To date, there is limited real-world data assessing the influence of sex on the effectiveness of Janus Kinase inhibitors (JAKi) in rheumatoid arthritis (RA) treatment.

Aim and objectives

- To compare the probability of reaching remission in women and men treated with JAKi.
- To analyze the potential impact of sex on JAKi treatment discontinuation due to lack of effectiveness.

Materials and methods

An observational retrospective study (2017/9-2023/9), involving RA patients treated with tofacitinib, baricitinib, upadacitinib, or filgotinib at a tertiary hospital.

- Logistic regression was applied to compare the odds of reaching remission (defined by the DAS28-ESR <2.6) at 6 months in women versus men.
- The **Cox model** was used to analyze sex as a potential predictive factor that could influence JAKi treatment discontinuation due to lack of effectiveness.

Results

184 JAKi treatments, corresponding to 123 RA patients (86% women, 63±13 years old).

There were no significant differences in baseline RA disease activities between women (DAS28-ESR: 5.0 [SD 1.3]) and men (DAS28-ESR: 4.7 [SD 1.3]), p=0.251.

At 6 months of JAKi treatment, women were less likely to reach the DAS28-ESR remission in comparison with men (odds ratio [OR]: 0.37, 95%CI: 1.05-7.10; p=0.040).

Discontinuation rates of JAKi treatment due to lack of effectiveness were not related with sex (hazard ratio

[HR]: 1.14, 95%CI: 0.54-2.41; *p*=0.732).

Conclusion and relevance

Based on the DAS28-ESR, women with RA who received treatment with JAKi possessed lower odds of reaching remission at 6 months of treatment than men. However, sex was not found to impact on JAKi treatment discontinuation due to lack of effectiveness.

