**OBJECTIVE and METHODS**

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To assess the comparative incidence of PD among patients with autoimmune diseases who are exposed to anti-TNF-α/IL-17 drugs vs those without exposure.

**Study Population and Data Source**

This was a retrospective cohort study utilizing clinical data from the Komodo health database (2014-2022). All eligible patients had at least 1 inpatient claim or at least 2 outpatient claims for RA, UC, CD, AS, or Psoriasis from January 1, 2015, to Dec 31, 2022. RA, UC, CD, AS, and Psoriasis were identified using International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) or International Classification of Diseases, 10th Revision (ICD-10) diagnosis codes and were included if treated with anti-TNF-α/IL-17 drugs for ≥180 days within the past 5 years from the index diagnosis date. The index diagnosis date was defined as the start date of anti-TNF-α/IL-17 treatment until the end of treatment, while 1,991,595 remained untreated in the timeframe of 2015 to 2022. The breakdown by disease category is depicted in Table 1.

**CONCLUSIONS**

Association of Anti-Inflammatory Autoimmune Diseases

Michele Potashman, PhD1; Jennifer S Haas2; Ambrish Pandit, PhD3; Dana Person-1-time incidence rates indicate a potential treatment-response relationship

By incorporating these covariates into the Poisson regression model, it accounted for differences in individual specific times and possibly the number of patients within each of the 5 quintiles. This resulted in a decrease of the incidence rate across the quintiles as the duration of follow-up time increased.

Overall, the analysis of person-time incidence rates revealed a significant protective effect of anti-TNF-α/IL-17 treatment (IRR: 0.63 [95% CI: 0.53-0.76]; P < 0.0001). The incidence rate was lower in the exposed cohort compared to 0.949 per 100 PY in the unexposed cohort. The calculated adjusted incidence rate was 0.661 per 100 person-years (PY) in the exposed cohort and 0.815 per 100 PY in the non-exposed cohort (adjusted IRR: 0.81 [95% CI: 0.69-0.97]; P < 0.0001).

In all study groups that received treatment, the average age at the time of initial diagnosis was 47 years. For the collective group that did not receive anti-TNF-α/IL-17 treatment, the average age was 54 years (notably higher). The median age across all groups was 48 years and ranged from 56 years in the untreated study group. The largest proportion of patients across all study groups fell within the age categories of 45-54 years and 55 years and older. Furthermore, females constituted a majority in every study group.

PD incidence (unadjusted)

The PD incidence rate was 0.661 per 100 person-years (PY) in the exposed cohort and 0.949 per 100 PY in the unexposed cohort. The calculated unadjusted IRR comparing the exposed to the unexposed was 0.69 (95% CI: 0.59-0.81; P < 0.0001). Patients exposed to anti-TNF/anti-IL-17 treatment only also may have some level of protective effect against PD.

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