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NEUROPSYCHIATRIC ADVERSE DRUG REACTIONS ASSOCIATED WITH LOW DOSE METHOTREXATE IN RHEUMATOID ARTHRITIS PATIENTS

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Background: Neuropsychiatric adverse drug reactions (NPADRs) are well known with high dose methotrexate treatment. However, NPADRs have also been observed with low dose methotrexate (LDMTX) treatment in real world rheumatology data.

Objectives: To evaluate the association between LDMTX and NPADRs, the impact of these NPADRs on further treatment and on health related quality of life (HRQoL) in patients with rheumatoid arthritis (RA) using real world data.

Methods: The nature and frequency of NPADRs associated with LDMTX in the Dutch DREAM-RA registry were described. We assessed the causality of each NPADR with the Naranjo Probability Scale (NPS), the impact of NPADRs on further LDMTX treatment and the impact on patient reported HRQoL. NPADRs were structured using terminology of the Medical Dictionary for Regulatory Activities.

Results: A total of 71 NPADRs (frequency 6.8%) associated with LDMTX were captured in the DREAM-RA registry. NPADRs were registered for 62 (5.9%) out of 1048 patients with 10.9 NPADRs per 1000 patient years (Table 1). The most frequently reported NPADRs were headache, dizziness and depression. The causality was considered probable for 67 NPADRs (94.4%) and definite for 1 NPADR (1.4%). The NPADRs led to LDMTX withdrawal in 34 cases (47.9%) and LDMTX was not restarted in 16 cases (47.1%). Median mental HRQoL was significantly decreased around the occurrence of the NPADR and remained significantly lower after the event. Median physical HRQoL was not significantly affected.

Table 1. Baseline characteristics of DREAM-RA patients using methotrexate with at least one neuropsychiatric adverse drug reaction

Characteristics N=62	N (%)
Female sex	40 (64.5%)
Age in years, mean (± SD), range	59.8 (± 13.1), 25 – 82
Rheumatoid factor	
Positive	43 (69.4%)
Negative	13 (21.0%)
Unknown	6 (9.7%)
Anti-CCP, n (%)	
Positive	34 (54.8%)
Negative	19 (30.7%)
Unknown	9 (14.5%)
Methotrexate dosage in mg/week, mean (± SD)	18.7 (± 5.9)
Specific methotrexate dosage	
< 15mg / week	5 (7.0%)
15mg/week	28 (39.4%)
20mg/week	11 (15.5%)
25mg/week	14 (19.7%)
30mg/week	5 (7.0%)
Unknown	8 (11.3%)
Concomitant medication at moment of NPADR	
Folic acid	68 (95.8%)
Prednisolone	20 (28.2%)

Anti-CCP: anti cyclic citrullinated peptides, NPADR: neuropsychiatric adverse drug reaction, SD: Standard Deviation

Conclusion: The association between NPADRs and LDMTX in RA patients was recognised by HCPs and frequently led to LDMTX withdrawal and a decrease in mental HRQoL. Many NPADRs scored 'probable' using the NPS. Knowledge on the nature, frequency and impact of these NPADRs will enhance attention towards potential NPADRs during LDMTX therapy allowing better risk assessment and communication to patients.

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BASELINE CHARACTERISTICS OF PATIENTS WITH RHEUMATOID ARTHRITIS TREATED WITH UPADACITINIB IN GERMAN REAL-WORLD PRACTICE: RESULTS FROM THE POST-MARKETING OBSERVATIONAL UPwARds STUDY

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Background: The efficacy and safety of upadacitinib (UPA), a selective Janus kinase inhibitor, has been evaluated in the SELECT rheumatoid arthritis (RA) clinical program,¹⁻⁶ but its real-world effectiveness remains to be investigated. The UPwArds study will assess the association of C-reactive protein (CRP) level with remission and other efficacy outcomes in patients with RA treated with UPA in German real-world practice.

Objectives: To describe the baseline characteristics of patients enrolled in the UPwArds study.

Methods: The prospective, open-label, multicenter, non-interventional, post-marketing UPwArds study included adult patients with moderate-to-severe RA (swollen joint count [SJC28] ≥3 and inadequate response or intolerance to ≥1 disease-modifying antirheumatic drug [DMARD]). Patients were treated with UPA 15 mg once daily, as monotherapy or in combination with methotrexate (MTX; 50:50 mono:combo enrollment planned), according to the German label. Variables assessed included medical history (disease duration, previous RA therapy, and vaccination status), CRP level, and disease activity (disease activity score [DAS28(CRP)], tender joint count [TJC28], and SJC28). There was no recruitment restriction regarding CRP level. This descriptive interim analysis reports patient baseline characteristics after enrollment was complete. All data were analyzed as observed, with no imputation of missing data.

Results: 533 patients (UPA monotherapy: 257 [48%]; UPA plus MTX: 276 [52%]) were included. Mean patient age was 58 years; mean disease duration was 9 years (Table 1). Despite having active RA, almost half the population (44%; n=237) did not have elevated CRP at the start of UPA treatment. Mean DAS28(CRP) was 4.6; mean TJC28 and SJC28 were 7.7 and 5.6, respectively. Overall, 39% of patients had not been treated with any biologic (b) DMARD or targeted synthetic (ts) DMARD before enrollment; 25% and 36% had previously been treated with 1 or ≥2 bDMARDs or tsDMARDs, respectively (Figure 1). 8.7% of patients had previously received a herpes zoster vaccination (8.1% Shingrix; 0.6% Zostavax).

Conclusion: In German clinical practice, the population of patients with RA in the UPwArds study was predominantly treatment-refractory. Half of these patients had no elevated CRP despite active disease; future analyses will assess the impact of CRP on efficacy outcomes.

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