Objectives: The aim of this study was to determine whether GCs were associated with an increased risk of incident hypertension in a cohort of patients with RA with conflicting results.

Methods: A retrospective cohort of patients with incident RA and no hypertension at baseline was identified from a primary care practice and electronic health records (Clinical Practice Research Datalink). GC prescriptions were used to determine time-varying GC use and dose, categorised as: no use, 0–4.9 mg/day, 5–7.4 mg/day, 7.5–14.9 mg/day, ≥15 mg/day. A 3-month risk attribution model was used where patients continued to remain at risk for 3 months after the end of prescriptions. Hypertension was defined as a systolic blood pressure (BP) ≥140 mmHg within a year or 3 antihypertensive prescriptions on at least two occasions and a Read code for hypertension. Unadjusted and adjusted Cox proportional hazards (PH) regression models were fitted to determine if there was an association between GC use and hypertension. Models were adjusted for baseline age, gender, baseline body mass index, baseline ever smoking, time-varying synthetic disease-modifying anti-rheumatic drug use, time-varying non-steroidal anti-inflammatory drug use and baseline Charlson comorbidity index.

Results: There were 17,760 patients with incident RA and no hypertension. The cohort had a mean age of 56.3 ± 12.7 years and were predominantly females (68%), 7,421 (42%) were prescribed GCs during follow-up. There were 6,243 cases of incident hypertension over 97547 person years (pys) of follow-up, giving an incident rate of 64.1 per 1000 yrs. Of those 3213 cases were in those exposed to GCs and 4922 were in those unexposed, giving incident rates of 87.6 per 1000 yrs and 59.7 per 1000 yrs, respectively. The adjusted Cox PH model indicated that recent GC use was associated with a 17% increased hazard of hypertension (hazard ratio: 1.17 (95% CI 1.10 to 1.24)). When categorised by dose, the adjusted model indicated only doses above 7.5 mg were significantly associated with hypertension (Table 1).

Table 1. Unadjusted and adjusted Cox proportional hazards regression model results

<table>
<thead>
<tr>
<th>Recent GC use</th>
<th>Unadjusted HR (95% CI)</th>
<th>Age and gender adjusted HR (95% CI)</th>
<th>Fully adjusted* HR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No GC use</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>GC use</td>
<td>1.44</td>
<td>1.23</td>
<td>1.17</td>
</tr>
<tr>
<td>GC use ≥7.5mg</td>
<td>1.35</td>
<td>1.13</td>
<td>1.10</td>
</tr>
<tr>
<td>GC use 5–7.4mg</td>
<td>1.40</td>
<td>1.11</td>
<td>1.07</td>
</tr>
<tr>
<td>GC use 3–4.9mg</td>
<td>1.21</td>
<td>1.01</td>
<td>0.98</td>
</tr>
<tr>
<td>GC use &lt;3mg</td>
<td>1.29</td>
<td>1.07</td>
<td>0.93</td>
</tr>
</tbody>
</table>

* Adjusted for: Baseline age, gender, baseline body mass index, baseline ever smoking, synthetic disease-modifying anti-rheumatic drug use (time-varying), non-steroidal anti-inflammatory drug use (time-varying) and baseline Charlson comorbidity index.

Conclusion: In this large cohort of patients with RA and without hypertension, recent GC use was associated with incident hypertension. In particular doses ≥7.5mg were associated with hypertension while the association with lower doses was inconclusive. Clinicians need to consider cardiovascular risk when prescribing GCs and ensure BP is regularly monitored.


FR0121

STEROID-SPARING EFFECT OF JAK INHIBITORS IN RHEUMATOID ARTHRITIS PATIENTS FOLLOWED UP IN A REAL LIFE SETTING

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Background: Glucocorticoids (GCs) are a milestone of Rheumatoid Arthritis (RA) treatment; EULAR recommendations on the management of medium to high dose glucocorticoids remind to evaluate comorbidities and risk factors for adverse events when planning GCs treatment. Tocilizumab and Baricitinib are Janus kinases inhibitors (JAKi) registered for RA treatment. About 60% of GC-naive RA patients enrolled in clinical trials with GCs are not treated with GCs; however, little is known about tapering and percentage of withdrawal both in clinical trials and real life.

Objectives: To evaluate the steroid-sparing effect of JAKi in patients with RA.

Methods: We prospectively enrolled consecutive adult patients with RA starting JAKi. At baseline and after 4, 12 and 24 weeks we calculated C-Reactive Protein based Disease Activity score (dC30DA28). Daily dose of GCs were recorded at each visit. A median dose (PDN)-equivalent dose. Data are expressed as median (IQR). Continuous variables were compared by Mann Whitney test while dichotomous ones by Chi-square test. P values < 0.05 were considered statistically significant.

Results: Between January 2018 and January 2020, 108 patients started JAKi: 67 patients Baricitinib, 41 patients Tocilizumab. The analysis was restricted to 64 RA patients (50 female, 14 male) who had at least 6 months of follow-up. Table 1 shows the demographic, clinical and cinemetric characteristics of the cohort.
Patients treated with baricitinib and tofacitinib were comparable for age, disease duration, PDN dose and previous number of csDMARDs and bDMARDs; 30 patients (47.6%) were treated with JAKi in monotherapy. At baseline, the median daily PDN dose was 5 (7.25) mg; after 4, 12 and 24 weeks the median daily dose significant decreased to 5 (6.25) mg, 2.5 (5) mg and 0 (5) mg, respectively (p<0.0001). The percentage of patients treated with GC decreased from 81.5% at week 4, and to 44.8% at week 12 and 24. After 4, 12 and 24 weeks we detected a significant reduction of PDN (p<0.0001 compared to baseline). A similar percentage of patients who withdrew PDN compared to those who were still on PDN achieved remission after 12 and 24 months. Similarly, the reduction in PDN was comparable between the two groups at week 4 [4.8 (4) in those who withdrew vs 4.1 (1) in those who did not] at week 12 [4.8 (1.6) for both] and at week 24 [3.7 (1.4) in those who withdrew vs 2.3 (0.7) in those who did not].

Methods:
NCT02919761).

Disclosures for the management of RA.

References:

Table 1. Demographic, clinical and clinimetric characteristics of the 64 patients

Table 1. PROMs From the 12-week Double-blind Withdrawal Phase, mITT-P

Results: In the mITT-P (N=259), 62.9% (p=0.0001) achieved DAS28-ESR <3.2 at W12 (mean BL DAS28-ESR=6.3). In Part 2 (RCI, n=77; PBO, n=76), more RCI-treated pts maintained DAS28-ESR <3.2 at W24 (62.3%, p=0.035) vs PBO (43.4%). Clinically significant improvements of PROMs from BL were observed through W12 and sustained to W24 (Table 1), with mean changes exceeding the reported minimal clinically important difference thresholds (MCIDs) for each.

Conclusion: RCI for persistently active RA resulted in clinically significant improvements in efficacy endpoints and PROMs for up to 6 months in pts who continued and discontinued RCI after 3 months of initial therapy.

Table 1. PROMs From the 12-week Double-blind Withdrawal Phase, mITT-P

Efficacy and patient-reported outcome measures from a two-part multicenter, placebo-controlled, randomized withdrawal trial of repository corticotropin injection for persistently active rheumatoid arthritis

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Background: Repository corticotropin injection (RCI) is a naturally sourced complex mixture of adrenocorticotropic hormone analogs and other pituitary peptides approved for short-term adjunctive treatment of rheumatoid arthritis (RA).

Objectives: This two-part, international, multicenter, placebo (PBO)-controlled study assessed the efficacy of RCI in persistently active RA patients (pts) using clinical and patient-reported outcome measures (PROMs) (ClinicalTrials.gov NCT02917961).

Methods: Adults ≥18 years with persistently active RA (DAS28-ESR >3.2) despite disease-modifying anti-arthritic drug and glucocorticoid use received open-label RCI (80U) subcutaneously 2x/week (BIW) for 12 weeks (Part 1). Pts with DAS28-ESR <3.2 at Week 12 entered the double-blind maintenance phase (Part 2) and were randomized to 80U RCI or PBO BIW through W24. Efficacy endpoints included the proportion of pts who achieved DAS28-ESR <3.2 at W12 (primary) and maintained it through W24 (secondary). Mean changes from baseline (BL) were assessed for select PROMs (exploratory): Patient Global Assessment of Pain (PGAP); Patient Global Assessment of Disease Activity (PGADA); Health Assessment Questionnaire Disability Index (HAQ-DI); Functional Assessment of Chronic Illness Therapy – Fatigue (FACT-F) scale; and Work Productivity and Activity Impairment (WPAI) questionnaire. Analyses used the modified intent-to-treat population (mITT-P; pts who received ≥1 dose of study drug and contributed any efficacy data).

References:

FRI0122

FRI0123

SAFETY PROFILE OF BARICITINIB FOR THE TREATMENT OF RHEUMATOID ARTHRITIS UP TO 8.4 YEARS: AN UPDATED INTEGRATED SAFETY ANALYSIS

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Background: Baricitinib (bари) is an oral selective inhibitor of JAK3 kinase (JAK) 1 and 2, approved for the treatment of moderate to severely active rheumatoid arthritis (RA) in adults.

References: