FACTORS ASSOCIATED WITH HOSPITAL ADMISSIONS MORTALITY IN RHEUMATOID ARTHRITIS PATIENTS IN SPAIN. (TRENDR-AR STUDY)

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Background: There have been significant changes in the management of rheumatoid arthritis (RA) during the past 20 years. The potential impact of these changes on hospital admissions mortality is unknown.

Objectives: To analyse the factors associated with hospital admissions mortality in rheumatoid arthritis patients in Spain from 1999 to 2015.

Methods: This is a retrospective population study. We have analyzed a national administrative database that includes a Minimum Basic Data Set (MBDS) of hospital admissions of RA patients during the period 1999 to 2015. We studied all the cases of hospital admissions mortality. Patients were identified by concatenation of clinical record number and birth date. The analyzed factors were identified by the presence in primary and secondary diagnosis of the ICD9 codes, during the first hospital admission. Hazard Ratio (adjusted by sex and age) were calculated by sex and age) of the factors associated with hospital admissions mortality (first admission) are: age, male sex, higher Charlson Index and longer hospital stay. The associated clinical variables are chronic hepatopathy, amyloidosis and neoplas.

Disclosure of Interests: None declared

Conclusion: In Spain, during the period of 1999-2015, the factors associated with hospital admission mortality (first admission) are: age, male sex, higher Charlson Index and longer hospital stay. The associated clinical variables are chronic hepatopathy, amyloidosis and neoplas.

Disclosure of Interests: None declared


AB0272

EVALUATION OF CXCL13, sICAM-1, MMP-3 AND S100A8/A9 AS SERUM BIOMARKERS IN PATIENTS WITH RHEUMATOID ARTHRITIS TREATED WITH SUBCUTANEOUS TOCILIZUMAB

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Background: Serum levels of C-X-C motif chemokine ligand 13 (CXCL13) and soluble intercellular adhesion molecule-1 (sICAM-1) have been associated with response to tocilizumab (TCZ) in patients with rheumatoid arthritis (RA); levels of matrix metalloproteinase-3 (MMP-3) and S100A8/A9 have also been associated with RA disease activity and joint damage.

Objectives: To evaluate the association of CXCL13, sICAM-1, MMP-3 and S100A8/A9 levels with disease activity and response to TCZ in patients with RA who achieved low disease activity with 24 weeks of TCZ + methotrexate (MTX) treatment and were subsequently randomized to TCZ monotherapy (mono) or TCZ + MTX in the COMP-ACT trial (NCT01855789).

Methods: US patients with RA who had an inadequate response to MTX received initial combination therapy of MTX plus TCZ 162 mg subcutaneous for 24 weeks. Patients who achieved Disease Activity Score in 28 joints calculated with erythrocyte sedimentation rate (DAS28-ESR) ≤ 3.2 at Week 24 were randomized 1:1 (double-blind) to receive either TCZ mono or continue TCZ + MTX until Week 52. Randomized patients were included in the present study based on baseline, Week 24 and Week 40 sample availability; serum levels of CXCL13, sICAM-1, MMP-3 and S100A8/A9 were measured by immunassay. Comparing between CXCL13, sICAM-1, MMP-3 and S100A8/A9 levels from baseline to Week 24 (open-label period) were determined using Wilcoxon test. Mean changes in CXCL13, sICAM-1, MMP-3 and S100A8/A9 levels from Week 24 to Week 40 (randomized period) were compared between treatment arms using analysis of covariance.

Results: Of 296 randomized patients, 249 were included (TCZ mono, n = 126; TCZ + MTX, n = 123). Biomarker levels were well balanced across treatment arms at baseline and Week 24 (randomization). At baseline, there were weak to mild correlations between DAS28-ESR and biomarker levels (CXCL13 [r = 0.13, P = 0.041], sICAM-1 [r = 0.20, P = 0.0015], MMP-3 [r = 0.19, P = 0.0021], S100A8/A9 [r = 0.25, P = 0.0001]). Significant reductions in mean biomarker levels were observed from baseline to Week 24 (open-label period) among the total randomized patients (P < 0.0001). CXCL13, sICAM-1, MMP-3 and S100A8/A9 levels were relatively stable between Week 24 and Week 40 (randomized period), with no significant differences between TCZ mono and TCZ + MTX (Table).

Table 1. Adverse Events During the 12-Month Post-Index Period, Stratified by GQC Daily Dose

<table>
<thead>
<tr>
<th>GQC Daily Dose</th>
<th>TCZ Mono</th>
<th>TCZ + MTX</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.5 mg</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>15 mg</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>17.5 mg</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>20 mg</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: In agreement with previous studies, the association between baseline disease activity and CXCL13, sICAM-1, MMP-3 and S100A8/A9 levels was weak to mild; TCZ + MTX treatment from baseline to Week 24 (open-label period) resulted in significant reductions in all biomarkers. Changes in levels of CXCL13, sICAM-1, MMP-3 and S100A8/A9 from Week 24 to 40 (randomized period) were similar between treatment groups, consistent with the finding of non-inferiority of TCZ mono compared with TCZ + MTX in patients with RA who achieve low disease activity with TCZ + MTX.

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