Background: Rheumatoid arthritis (RA) is one of the most frequent rheumatic diseases, and the age of onset is between 30-50 years old. Late-onset RA (LORA) is usually defined as RA with onset at age 60 or over.

Objectives: To investigate the choice, effectiveness and the retention rate of biological drugs in LORA patients.

Methods: TURKBIO registry is the Turkish version of Danish DANBIO rheumatological database which has been established in 2011. We studied RA patients in TURKBIO registry cohort between the dates of 2011 and 2020. All patients fulfilled the American College of Rheumatology criteria for RA and were classified into two groups based on their age at symptom onset: adult-onset RA (>18-60 years; AORA) and LORA (≥60 years). In both groups, demographical, clinical and laboratory variables; disease activity, current and previous treatment were compared.

Results: From 10 centers, 2111 RA patients recruited, and 8.8% of them was LORA patients. In LORA, the frequency of female was less than AORA. While, there was no difference between LORA and AORA in terms of erosion presence and RF positivity, anti-CCP positivity was more frequent in LORA group. The use of anti-TNF was lower, and the use of rituximab was more frequent in LORA. At 12 months after bDMARDs therapy, serum CRP and ESR levels and DAS28-CRP showed higher changes compared to baseline values in LORA. Although the mortality rate was higher in LORA, the adverse reactions were reported to be higher in AORA, and most common adverse reactions was infections in both groups (Table). The longest survival was observed in infliximab and rituximab (median 22 and 20months) in LORA, in rituximab and golimumab (median 16 and 12months) in AORA.

Conclusion: The frequency of LORA who uses bDMARDs was 8.8% in our database. In the elderly patient population, there are some reservations about the use of biological drugs in general due to several comorbidities and concomitant drug used. Although data on this issue are limited, appropriate biological use can be effective and reliable in required patients.

References:

Disclosure of Interests: None declared

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Table. Comparison of demographic, laboratory findings and biological treatment

<table>
<thead>
<tr>
<th>(median:25-75)</th>
<th>AORA (n=60)</th>
<th>LORA (n=60)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (year)</td>
<td>54 (43-61)</td>
<td>71 (68-74)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Disease duration (year)</td>
<td>11.4 (7-18)</td>
<td>6 (4-9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Gender (Female)</td>
<td>1562 (81)</td>
<td>124 (67)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Anti-CCP positivity</td>
<td>747 (62)</td>
<td>65 (72)</td>
<td>0.044</td>
</tr>
<tr>
<td>RF positivity</td>
<td>721 (61)</td>
<td>63 (70)</td>
<td>0.085</td>
</tr>
<tr>
<td>Erosion presence</td>
<td>486 (56)</td>
<td>41 (62)</td>
<td>0.955</td>
</tr>
<tr>
<td>Drug survival (months)</td>
<td>18 (6-44)</td>
<td>18 (4-31)</td>
<td>0.046</td>
</tr>
<tr>
<td>Concomitant csDMARDs</td>
<td>MTX 629 (39)</td>
<td>32 (22)</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>SLP 146 (8)</td>
<td>13 (7)</td>
<td>0.781</td>
</tr>
<tr>
<td></td>
<td>LEF 501 (27)</td>
<td>35 (20)</td>
<td>0.032</td>
</tr>
</tbody>
</table>

bDMARDs

- Anti-TNF
  - 1068 (56) | 73 (39) | <0.001 |
  - 304 (16) | 20 (11) | 0.069 |
  - 294 (15) | 27 (15) | 0.784 |
  - 439 (23) | 57 (31) | 0.016 |
  - 298 (16) | 34 (18) | 0.317 |
- Response ΔESR
  - 6 (2-14) | -18 (3-6) | 0.016 |
- ΔDAS28-CRP
  - 1.2 (0-3) | -2.8 (0-1) | 0.014 |
- ΔHAQ
  - 0.3 (0-8) | -0.4 (0-8) | 0.114 |
- Adverse effects
  - 440 (23) | 32 (17) | 0.077 |
- Malignancy
  - 9 (0) | 3 (16) | 0.082 |
- Infection
  - 192 (10) | 10 (5) | 0.042 |
- Allergy
  - 63 (3) | 4 (2) | 0.404 |
- Dermatitis
  - 62 (3) | 1 (0) | 0.350 |
- Death
  - 18 (9) | 7 (4) | 0.004 |

Other
  - 136 (7) | 11 (6) | 0.556

SAT0128

ARE THERE ANY DIFFERENCES BETWEEN ADULT-ONSET RHEUMATOID ARTHRITIS PATIENTS AND LATE-ONSET RHEUMATOID ARTHRITIS PATIENTS IN TERMS OF USE OF BIOLOGICAL DRUGS AND DRUG RETENTION RATE? RESULTS FROM THE TURKBIO REGISTRY


SAT0129

ROLE OF SHARED EPITOPE ON THE EFFECTIVENESS OF TNF TREATMENT FOR PATIENTS WITH RHEUMATOID ARTHRITIS

J. Zhuo1, J. Bryson1, Q. Xia1, N. Sharma2, C. Samad2, S. Lama1, M. E. Weinblatt1, N. Shadick1, B. Bristol-Myers Squibb, Lawrenceville, United States of America2; Mu-Sigma, Bangalore, India3; Brigham and Women’s Hospital, Boston, United States of America

Background: Rheumatoid arthritis (RA) has been shown a strong genetic association with particular HLA-DRB1 alleles containing shared epitope (SE). However, whether SE is clinically useful in treatment choices is insufficiently investigated and previous studies have presented mixed findings in the role of SE in the response of TNFi therapies.

Objectives: To assess the role of SE in response to TNFi treatment in real-world RA patients (pts).

Methods: Pts enrolled in a large RA registry, Brigham and Women’s Hospital RA Sequential Study, with known SE and received TNFi therapies were included for the analysis. TNFi pts were identified by the first-time use of the drugs between March 2003 to June 2018. For this analysis, all pts were followed up to 1 year. Summary statistics were reported for demographics, serostatus and disease activity (DA) at baseline and follow-up, stratified by SE status. Given the strong association of SE and anti-citrullinated protein antibody (ACPA), the analysis was further stratified by ACPA status. The effect of SE on change in DA was assessed using linear regression model with age, gender, RA disease duration, baseline DA, smoking status, SE, ACPA and ACPA-SE interaction as covariates.

Results: Of the 484 TNFi pts included in the study, 68.8% were SE+. SE+ pts (vs SE-) were more likely to be rheumatoid factor positive, have erosive