THE COMPARISON OF THE ULTRASONOGRAPHIC PATIENT-REPORTED OUTCOMES WITH SARILUMAB IN RA

Background: Biologic disease-modifying anti-rheumatic drugs (bDMARDs) that target cytokines and cytokine receptors such as tumour necrosis factor (TNF) alpha and interleukin (IL) 6 have been established as a standard therapy in patients with rheumatoid arthritis (RA). Tocilizumab (TCZ) that targets IL-6 receptor has two administration routes such as intravenous administration (IV) or subcutaneous injection (SC). The effect of TCZ-SC therapy demonstrated comparable efficacy and safety to TCZ-IV therapy in clinical study. However, there have been no reports that evaluate the effect of TCZ-IV and SC for synovitis by imaging modality.

Objectives: The aim of this study was to compare the ultrasound findings between patients with rheumatoid arthritis (RA) treated by TCZ-IV and SC.

Methods: All patients with RA who treated with TCZ in Osaka City University RA registry (1140 patients with RA and 380 patients using bDMARDs) were included in this cross-sectional study. US examination was performed in MCP,PIP, wrist and MTP joints and finger flexion tendon and wrist extensor tendon, by using HI VISION Ascendus (Hitachi Medical Corporation, Japan) with a multifrequency linear transducer (18–6 MHz). The grey scale (GS) and power Doppler (PD) findings were assessed by the semi-quantitative method (0–3). GS score and PD score (both 0–156 points) were defined as the sum total of each score.

Results: We analysed total 76 patients who treated TCZ, 27 patients in IV group and 49 patients in SC group (mean age: 62.9±14.0 vs 66.0±13.2 years, p=0.343, mean duration of RA: 17.1±11.1 vs 13.7±12.3 years, p=0.218). The duration of TCZ use was significantly longer in IV (4.6±2.2 vs 3.0±2.4 years, p=0.004). Clinically, DAS28-ESR improved from 5.3±1.5 at baseline to 2.4±1.1 at US examination in IV group, and it improved from 5.2±1.4 to 2.8±1.5 in SC group. US findings were not significantly different in both groups, GS score: 11.7±12.5 vs 10.0±9.6 (p=0.751), PD score: 5.3±8.1 vs 5.7±6.8 (p=0.832), max PD grade: 1.3±0.9 vs 1.4±0.9 (p=0.571) in IV and SC respectively.

Conclusions: We compared the ultrasound findings between patients with RA treated by TCZ-IV and SC. Ultrasonographic findings between IV and SC were not significantly different. Both administration routes of TCZ are effective for the treatment in patients with RA.

Disclosure of Interest: None declared

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Disclosure of Interest: None declared

REFERENCES:

Abstract FRI0142 – Table 1. The comparison of demographic and ultrasonographic findings between TCZ-IV and SC patients with rheumatoid arthritis.

<table>
<thead>
<tr>
<th>TCZ-IV group</th>
<th>TCZ-SC group</th>
<th>P value</th>
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<tbody>
<tr>
<td>Age (years old)</td>
<td>62.9±14.0</td>
<td>66.0±13.2</td>
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<tr>
<td>Disease duration (years)</td>
<td>17.1±11.1</td>
<td>13.7±12.3</td>
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<tr>
<td>Duration of TCZ use (years)</td>
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<td>3.0±2.4</td>
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<tr>
<td>DAS28-ESR at baseline</td>
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<td>5.2±1.4</td>
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<tr>
<td>DAS28-ESR at ultrasound examination</td>
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<td>2.8±1.5</td>
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<tr>
<td>CDAL at baseline</td>
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<td>22.8±14.4</td>
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<tr>
<td>CDAL at ultrasound examination</td>
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<td>10.6±10.4</td>
</tr>
<tr>
<td>Total GSUS score</td>
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<td>10.9±9.6</td>
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<tr>
<td>Total PDUS score</td>
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<tr>
<td>Maximum PDUS grade</td>
<td>1.3±0.9</td>
<td>1.4±0.9</td>
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</tbody>
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Graph FRI0142

P Value