Conclusion: The incidence of invalid results for the T-SPOT.TB assay has been reported to be as low as 0.6% (3). The results of this assay for screening of LTBI in HTLV-I-positive RA patients should be interpreted with caution. Furthermore, our results show that an increase in IFN-γ-producing T cell numbers due to HTLV-I infection in RA patients may affect the pathogenesis of RA.

References:

Acknowledgments: We would like to thank Dr. Yuki Hashikura and Ms. Yuki Kaseda of the University of Miyazaki for their technical support in this work. We would also like to acknowledge Ms. Yuiko Kato at the Institute of Rheumatology, Zenjinkai Shimin-no-Mori Hospital, for her help in data management. A part this work was supported by a grant from the Practical Research Project for Rare/Intractable Diseases of the Japan Agency for Medical Research and Development (Grant No. JP19ek0109035), a Health and Labor Sciences Research Grant on Rare and Intractable Diseases from the Ministry of Health, Labor and Welfare of Japan (Grant No. 19FC1007), and a Grant-in-Aid for Clinical Research from Miyazaki University Hospital.


DOI: 10.1136/annrheumdis-2020-eular.1588

AB0269
THE CHARACTERISTICS OF PERIPHERAL LYMPHOCYTE SUBSETS AND CYTOKINES LEVEL IN RHEUMATOID ARTHRITIS WITH CORONARY ARTERY DISEASE
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Background: Rheumatoid arthritis (RA) is a systemic autoimmune disease. It is characterized by highly disabling polyarthritides, but extra-articular features are also common and portend a poor prognosis. Compared with the general population, the incidence and mortality of cardiovascular disease in RA are significantly increased. Chronic autoimmune inflammation is the common pathogenesis of RA and coronary heart disease (CAD). We’ve proved that lymphocyte subsets imbalance and high cytokines expression play an important role in the occurrence and development of RA diseases. However, the level of lymphocyte subsets and cytokines of RA patients with CAD are rarely reported [1-2].

Objectives: To explore the clinical characteristic of lymphocyte subsets and cytokines of RA patients with CAD and make comparisons with simple RA patients and healthy controls.

Methods: The study included 96 patients with a diagnosis of RA according to the 1987 revised criteria of the ACR, including 54 RA patients with CAD and 42 RA patients without CAD and other cardiovascular disease, 40 healthy controls were also concluded. The absolute numbers of lymphocyte subsets and T subsets in peripheral blood were measured by Flow Cytometer (FCM). Serum levels of IL-2, IL-4, IL-6, IL-10, IL-17, IFN-γ, and TNF-α were measured by flow microsphere capture chip technique (CBA) for 19 RA patients with CAD and 38 simple RA patients among 96 patients. We also collected relevant clinical information and made DAS28 score, and all patients are in the middle-high disease activity group (DAS28≥3.2).

Results: (1) There was no difference in DAS28 scores between the two groups(p=0.572). (2) Compared with RA patients without CAD, the absolute number of total T cell(p=0.035), total B cell (p=0.006), CD4+ T cell (p=0.012), Th1 cell (p=0.037), Th17 cell (p=0.033) and CD4+CD25+FOPXP3+ Treg (p=0.003) was lower than RA patients with CAD, the number of NK cell (p=0.685), CD8+ T cell (p=0.322) and Th2 cell (p=0.770) had no obvious difference between them. (3) Compared with the healthy control, the absolute number of total T cell (p=0.014), total B cell (p=0.006), CD8+ T cell (p=0.000) in RA with CAD was evidently lower, but there was no significant difference in absolute number of CD4+ T cell (p=0.582), Th1 cell (p=0.052), Th2 cell (p=0.595), Th17 cell (p=0.148) and Treg (p=0.176) (Figure 1). (4) In RA patients with CAD, the level of cytokines IL-2(p=0.042), IL-4(p=0.043) and IL-17(p=0.012) was lower, while other cytokines had no difference (Table 1).

Disclosure of Interests: None declared

Table 1. The expression level of cytokines of RA patients with CAD(n=19) and RA patients without CAD (n=38).

<table>
<thead>
<tr>
<th>Cytokines (pg/ml)</th>
<th>RA and CAD group(A)(n = 19)</th>
<th>RA group(B)(n = 38)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-2</td>
<td>5.50(1.36, 12.82)</td>
<td>6.82(4.45, 14.44)</td>
<td>0.042</td>
</tr>
<tr>
<td>IL-4</td>
<td>4.93(1.67, 9.41)</td>
<td>6.28(4.49, 11.88)</td>
<td>0.043</td>
</tr>
<tr>
<td>IL-6</td>
<td>23.69(10.93, 73.08)</td>
<td>36.67(15.40, 72.50)</td>
<td>0.636</td>
</tr>
<tr>
<td>IL-10</td>
<td>7.67(5.45, 10.50)</td>
<td>7.62(5.69, 19.91)</td>
<td>0.223</td>
</tr>
<tr>
<td>IL-17</td>
<td>10.81(4.04, 20.25)</td>
<td>20.68(13.88, 45.08)</td>
<td>0.012</td>
</tr>
<tr>
<td>TNF-α</td>
<td>6.10(3.27, 13.84)</td>
<td>13.57(5.79, 15.83)</td>
<td>0.115</td>
</tr>
<tr>
<td>IFN-γ</td>
<td>10.49(2.50, 29.04)</td>
<td>14.96(10.03, 30.39)</td>
<td>0.097</td>
</tr>
</tbody>
</table>

Figure 1. The absolute number of lymphocytes of RA patients with CAD(n=54), RA patients without CAD (n=42) and healthy control (n=40). (P<0.05, **P<0.01, ***P<0.001).

Conclusion: Our research shows that there is lymphocyte imbalance and immune disorder existing in RA patients with CAD. Both the number of lymphocyte subsets and cytokines levels decreased in these patients than pure RA patients. It suggests that this group may be in lower immune state, which providing guidance for further clinical treatment of RA patients with CAD.

References:

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.1588

AB0270
THE IMPACT OF DIABETES MELLITUS ON OUTCOMES OF RHEUMATOID ARTHRITIS AT 5-YEAR FOLLOW-UP: RESULTS FROM A MULTI-ETHNIC ASIAN COHORT IN SINGAPORE
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Background: Both diabetes mellitus (DM) and rheumatoid arthritis (RA) are prevalent diseases and represent the leading causes of disability and mortality worldwide. Systemic chronic inflammation is recognized as the underlying
etiology of a variety of diseases, including DM and RA [1]. Additionally, cardio-
ovascular and musculoskeletal complications from DM may influence the out-
comes of RA patients.

Objectives: To investigate the impact of DM on outcomes of RA patients.

Methods: This is a cross-sectional study including 583 RA patients with 5
years’ history after diagnosis in Tan Tock Seng Hospital RA registry, Singa-
apore from 2001 to 2013. Information related to demographics, serologies, 
clinical features, comorbidities, and outcomes was collected. Independent
T-test or Mann-Whitney U test was used to compare continuous quantitative
data, while Pearson Chi-square or Fisher Exact test for categorical data. With
adjustment for age, gender, ethnicity, smoking and comorbidities, multivariate
regressions were performed to analyze the impact of DM on outcomes of RA
patients.

Results: DM is more prevalent in Malay and Indian patients than Chinese
patients with RA (26%, 24% and 11% respectively, p = 0.005). There is no
difference of disease activity between DM and non DM patients. There is a
tendency that non diabetic RA patients use more methotrexate (p = 0.052)
and leflunomide (p = 0.058). Diabetic RA patients are in higher risk of poor
American College of Rheumatology (ACR) functional status (p = 0.009), knee
arthroplasty (p < 0.001) and admissions (p = 0.006). Adjusted for age, gender,
ethnicity, smoking and comorbidities, multivariate regression analyses showed a
trend of poor function status for diabetic RA patients, i.e. ACR functional
status (adjusted odds ratio [aOR]: 1.802, 95% confidence interval [CI]: 0.968
- 3.353, p = 0.063) and median Health Assessment Questionnaire (HAQ) (6
coefficient value: 0.129, 95% CI: -0.100 - 0.267, p = 0.068), and higher risk for
knee arthroplasty for diabetic RA patients (aOR: 3.480, 95% CI: 1.016 - 11.920,
 p = 0.047).

Conclusion: This is the first report on the impact of DM on RA outcomes in a
long term follow-up RA registry in a multiethnic Asian society.

References:

Disclosure of Interests: None declared

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.5203

14. Rheumatoid arthritis - biological DMARDs

AB0272 SWITCHING FROM ETANERCEPT ORIGINAL TO
ETANERCEPT BIOSIMILAR. EXPERIENCE IN A
TERTIARY HOSPITAL.

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Background: With the arrival of biosimilar drugs and savings policies to make
the health system sustainable, hospital managers have chosen to make changes
from original molecules to biosimilar drugs.

Objectives: This work aims to reflect what happens when making these
switchings.

Methods: We reviewed 235 patients who started Etanercept original in Rheuma-
tology at Navarra Hospital Complex and Henares University Hospital and their
switch to Etanercept biosimilar with a follow-up of 6 months.

Results: The switch was performed in 174 patients with psoriatic arthritis (PsA),
rheumatoid arthritis (RA), ankylosing spondylitis (AS), juvenile idiopathic arthri-
tis, SAPHO and spondyloarthritis. 9.8% discontinued treatment: 6 RA (8.1%), 5 PsA (9.8%) and 6 AS (20.7%);
all of them in the injection presentation. 12 patient stopped treatment due to
ineffectacy, 2 due to reaction at the injection site, 2 due to diarrhea and 1 due
to headache. Among 88.2% of patients who returned to Etanercept original, 28.6% did not achieve good response and had to change of treatment. The
median persistence time in the original molecule and the percentage of fail-
ures observed in AS could be two conditions to consider before switching.
A longer-term follow-up and a greater number of patients are necessary to ratify
these data.

DOI: 10.1136/annrheumdis-2020-eular.1370

AB0271 EFFECTIVENESS OF DULOXETINE FOR RELIEF
OF THE REMNANT PAIN OF RHEUMATOID ARTHRITIS
PATIENT WHOSE DISEASE ACTIVITY IS REMISSION

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Shimanto City, Japan

Background: Pain control in rheumatoid arthritis (RA) patient is an important
matter. When pain remains even disease activity is remission, it causes deter-
rioration of activity in daily living (ADL) in past research. In other words, pain
affects ADL independently from disease activity, namely the Health Assessment
Questionnaire (HAQ) score, a most popular index of ADL for patient with RA[1].
Thus, burden of remnant pain despite clinical remission in RA is serious and
and pending subject.

Duloxetine, a potent reuptake inhibitor of serotonin and norepinephrine, is devel-
oped for the treatment of major depressive disorder [2]. It’s effectiveness for pain
relief, for improvement of ADL, and for the contribution to QOL maintenance,
however, no effect of disease activity control is expected.

References:
[1] Yoshii I, Chijiwa T, Sawada N. Influence of pain score measured by a visual
analog scale (PS-VAS) on the Health Assessment Questionnaire Disability
and G-C respectively, however no statistical significance demonstrated in both
groups.

Conclusion: Duloxetine has been suggested to have effectiveness for the pain
relief, for improvement of ADL, and for the contribution to QOL maintenance,
however, no effect of disease activity control is expected.

Disclosure of Interests: None declared

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.2503