coincidence was 92.72%-94.79%. The sensitivity and specificity val-
ues of ELISA proposed by the manufacturer for clinical diagnosis RA
were 82% and 95%. The two methods had the same detection effect.
Conclusion: The current commercially available methods for detecting
anti-CCP antibodies were roughly the same, and the consistency between
LETIA and ELISA were high. In general, the LETIA was more accurate
and sensitive than the ELISA in the detection of anti-CCP antibodies in
serum. Overall diagnostic performance of ELTIA can be compared. LETIA
provided reliable information about antibody levels that made it useful
in monitoring disease activity. Comparable to the classic ELISA, ELISA may
even be replaced in the future.

REFERENCES
ies measurement by ELISA and a bead-based assay in a large patient

Disclosure of Interests: None declared

AB1336B PERFORMANCE EVALUATION OF PARTICLE-
ENHANCED TURBIDIMETRIC IMMUNOASSAY FOR
ANTINUCLEAR ANTIBODIES DETECTION IN
COMPARISON WITH LINE IMMUNOASSAY
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University, Taiyuan, China

Background: Detection of antinuclear antibodies (ANAs) supports the clini-
cal diagnosis of ANA-associated rheumatic diseases, such as systemic sclerosis
(SSc), systemic lupus erythematosus (SLE), primary sjogren’s syndrome (SiS) and mixed connective tissue disease (MCTD) [1-3].
Throughout history, a number of autoantibody detection methods have
emerged, for instance, indirect immunofluorescence (IF), radioimmunoas-
say (RIA), enzyme-linked immunosorbent assay (ELISA) and line immuno-
assay (LIA) [4]. With the development of detection technology, new
methods to detect ANAs were continuously developed by numerous manu-
ufacturers, for example, particle-enhanced turbidimetric immunoassay
(PETIA). Therefore, in the current study, we evaluated for the first time
the performance of PETIA in the detection of anti-nuclear antibody and
compared it with commercial LIA.

Objectives: To evaluate the clinical performance of PETIA for the detec-
tion of ANAs in comparison to the currently commonly used LIA.

Methods: Total 606 serum samples from diseased and healthy controls
were assayed to simultaneously determine SSA, Sm/RNP, SSB, Sm and
U1-SnRNP antibodies by the PETIA and LIA. The sensitivity, specificity,
consistency and area under curve (AUC) were analyzed for each anti-
body between PETIA and LIA.

Results: The positive rate and specificity of PETIA and LIA for ANA spec-
fic target antibodies were comparable. Compared with LIA, the sensitivity
of SSA, SSB and Sm were 100.00%, 88.89% and 90.00%, while Sm/
RNP and U1-SnRNP were 75.00%, 70.59%, respectively; Sm/RNP, SSB,
Sm and U1-SnRNP have high specificity, respectively 97.87%, 98.90%,
97.60% and 94.68%, while SSA specificity is general, 81.52%. Under
manufacturer’s cut-off values, the consistent rates of SSA, Sm/RNP, SSB,
Sm, and U1-SnRNP between PETIA and LIA were 87.22% (116/133),
92.06% (116/126), 96.61% (114/118), 97.03% (98/101) and 88.28% (113/
128), respectively. Excellent consistencies were found between PETIA
and LIA for the detection of Sm/RNP, SSB and Sm antibodies
(kappa=0.75), and kappa coefficients were 0.776 (p<0.001), 0.901
(p<0.001) and 0.841 (p<0.001), while the coincidence for anti-SSA and
U1-SnRNP detection were moderate (0.40<kappa<0.75), and Kappa coeffi-
cient was 0.731 (p<0.001) and 0.685 (p<0.001), respectively.

Conclusion: The performance of PETIA for the detection of antibodies to
nuclear specific antigen was satisfying to correlate with that of LIA. With
the additional benefits of short detection time, quantitative output and
high universality, PETIA can better meet the requirements of quantitative
detection of specific target antibodies.

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Results: A statistically significant difference was found between three groups in terms of normalized suprahyoid muscle activity (p<0.001) (Table 1). The difference between three groups was caused by the difference between Group 1 and Group 2 (p<0.001) and between Group 1 and Group 3 (p=0.040) in favor of Group 1. No difference was found between Group 2 and Group 3 (p=0.104) (Table 2-4).

Table 1. Comparison of Normalized Suprahyoid Muscle Activation between groups

<table>
<thead>
<tr>
<th>Group</th>
<th>n:14</th>
<th>Mean ±SD</th>
<th>Group</th>
<th>n:14</th>
<th>Mean ±SD</th>
<th>X²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.791</td>
<td>0.306</td>
<td>0.472</td>
<td>15.760</td>
<td></td>
<td>*&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>±0.380</td>
<td>±0.116</td>
<td>±0.284</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05

Table 2. Comparison of Normalized Suprahyoid Muscle Activation between Group 1 and Group 2

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Mean ±SD</th>
<th>Group 2</th>
<th>Mean ±SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.791</td>
<td>±0.380</td>
<td>0.306</td>
<td>±0.116</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05

Table 4. Comparison of Normalized Suprahyoid Muscle Activations of Group 2 and Group 3

<table>
<thead>
<tr>
<th>Group 2</th>
<th>Mean ±SD</th>
<th>Group 3</th>
<th>Mean ±SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.791</td>
<td>±0.380</td>
<td>0.472</td>
<td>±0.284</td>
<td>*0.040</td>
</tr>
</tbody>
</table>

*p<0.05

Table 5. Comparison of Normalized Suprahyoid Muscle Activations of Group 2 and Group 3

<table>
<thead>
<tr>
<th>Group 2</th>
<th>Mean ±SD</th>
<th>Group 3</th>
<th>Mean ±SD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.306</td>
<td>±0.116</td>
<td>0.472</td>
<td>±0.284</td>
<td>0.107</td>
</tr>
</tbody>
</table>

*p<0.05

Conclusion: In conclusion, primarily CTAR exercise should be included in rehabilitation to increase the suprahyoid muscle activation. In addition, chin tuck exercise with Theraband can also be considered as an alternative to CTAR.

REFERENCES

Disclosure of Interests: None declared

Education
AB1337 A VIRTUAL BIOLOGIC PATHWAY TO IMPROVE CARE STANDARD, REDUCE TREATMENT DELAYS AND IMPROVE COST EFFICIENCY - THE WHIPPS CROSS VIRTUAL BIOLOGIC CLINIC EXPERIENCE

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Background Biologic therapies have become standardised as best practice for treatment of Rheumatoid Arthritis (RA), Psoriatic Arthritis (PsA) and Axial Spondyloarthopathies (AS) in the UK. There are more stringent criteria for access versus Europe and the USA. There is no agreed mechanism to choose a specific agent over and above locally agreed criteria that are disease specific. Most UK rheumatologists make an individual decision based on personal experience and guidelines as well as evidence. There are cost implications and inherent delays within locally agreed pathways that involve a pharmacist and a patient education process that may be nurse led. The overall process to initiate this treatment takes months. To this end a weekly one hour Virtual Biologic Clinic (VBC) has been set up: attended by the multi-disciplinary team of all consultants, clinical and research nurse specialists, lead pharmacist and an administrator.

Objectives We compared waiting time for biologic initiation before and after the VBC, assessed numbers whose treatment plan was altered and we attempted a cost analysis.

Methods All patients with RA, PsA, AS and a relevant connective tissue disease (CTD) attending VBC between Nov 2017 and Jun 2018 were included in this retrospective observation. All patients starting a biologic therapy one year earlier (Nov 2016-17) were compared. The time between decision to treat and prescription receipt by delivery company/day unit for IV admin) was measured (by Mann-