High prevalence of anti-beta-2 glycoprotein-I and anti-prothrombin antibodies in adult-onset Still’s disease. Comment on “Portal vein thrombosis in adult-onset Still’s disease: a case report and literature review”

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LETTER TO THE EDITOR


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Dear Sir,

We have followed with great interest case report by Morita et al.\(^1\). In our group of 8 patients diagnosed with Adult-onset Still’s disease (AOSD) according to Yamaguchi criteria we reviewed presence of antiphospholipid antibodies. They were detected in 6 of 8 patients: the most common were anti-prothrombine (anti-PT) followed by anti-beta2 glycoprotein I antibodies (anti-β2GPI) (Table 1). D-dimer level was elevated in all patients, however, no related thrombosis was diagnosed. Only one patient presented with deep vein thrombosis at the time of AOSD relapse, and one woman had a history of miscarriage, however not fulfilling current antiphospholipid syndrome classification criteria.

Our first reflection was how difficult differential diagnosis of liver disease in AOSD is, as raised serum aminotransferase (AT) level may be associated with high disease activity and preceded by a rise of acute phase reactants (Fig. 1). In a case described by Morita et al.\(^1\), portal vein thrombosis occurred in a patient with raised AT level and low general disease activity. Our patient with deep vein thrombosis at the time of AOSD relapse (Table 1, no 6) had also concurrent raise of serum AT level, and high concentration of anti-β2GPI and anti-PT. Raised concentration of antiphospholipid antibodies might help to establish early diagnosis of thrombosis in patients with AOSD.

Coagulation abnormalities are frequently reported in AOSD: there have been reports of various clinical manifestations of thrombotic microangiopathic haemolytic anaemia (TMHA)\(^2\), disseminated intravascular coagulation (DIC)\(^3\), and occasionally, antiphospholipid syndrome\(^4\). However, the knowledge on etiopathogenesis of hypercoagulative state in AOSD is limited. The presence of anticardiolipin antibodies (aCL) may contribute to the development of TMHA\(^5\).

Only one of our patients was positive for aCL, in contrast with high prevalence of anti-β2GPI and anti-PT. These antibodies have not been routinely assessed in previous studies\(^1,2,3\). The presence of LAC in our patients is not easy to interpret also because Russel’s Viper venom test revealed moderate probability of LAC. This might be also explained by deficiency of coagulation factors or presence of their unknown inhibitors, especially because activated partial thromboplastin time (APTT) was short or normal.

Prevalence of anti-β2GPI and anti-PT in AOSD should be further studied to reveal their role in coagulopathies.
References


Table 1 Characteristics of patients with AOSD: fibrinogen (normal 150-400), D - dimer (normal <500), alanine-aminotransferase (ALT, normal <30), ferritin (normal 30-400), anti-β2GPI (normal <20), aCL IgM (normal <12), anti-PT (normal <30). All tests were performed in patients with “active” disease, with exception of control antibodies levels (written after slash) assessed at minimum 6 weeks interval. Lupus anticoagulant was detected using dRVVT. All other antibodies were detected by enzyme-linked immunosorbent assay (ELISA).

<table>
<thead>
<tr>
<th>No.</th>
<th>sex</th>
<th>age</th>
<th>fibrinogen (mg/dl)</th>
<th>D-dimer (ng/ml)</th>
<th>ALT (U/l)</th>
<th>ferritin (ng/ml)</th>
<th>LAC (RU/ml)</th>
<th>anti-β2GPI (IU/ml)</th>
<th>aCL IgM (U/ml)</th>
<th>anti-PT (IU/ml)</th>
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<td>17</td>
<td>462</td>
<td>1000</td>
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<td>ND</td>
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<tr>
<td>2.</td>
<td>m</td>
<td>18</td>
<td>ND</td>
<td>ND</td>
<td>18</td>
<td>ND</td>
<td>ND</td>
<td>&lt;2</td>
<td>0</td>
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<td>39</td>
<td>591</td>
<td>2526</td>
<td>204</td>
<td>2973</td>
<td>ND</td>
<td>&lt;2</td>
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<td>ND</td>
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<td>864</td>
<td>186</td>
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<td>ND</td>
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<td>1170</td>
<td>29</td>
<td>ND</td>
<td>ND</td>
<td>51/&gt;200</td>
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<td>28/37</td>
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<td>6415</td>
<td>152</td>
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<td>0</td>
<td>&gt;100/21</td>
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<td>f</td>
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<td>438</td>
<td>1595</td>
<td>150</td>
<td>2156</td>
<td>P/ND</td>
<td>130/118</td>
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<td>77</td>
<td>421</td>
<td>P/A</td>
<td>11</td>
<td>0</td>
<td>30/ND</td>
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</tbody>
</table>

ND- not done, P- present, A- absent.
Fig. 1 Change of ESR and alanine-aminotransferase (ALT) values in one of the patients.