Assessment of clinical course of Behçet disease patients with uveitis after discontinuation of infliximab treatment

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[Background]
Infliximab is a chimeric IgG1 monoclonal antibody that blocks the binding of TNF-α to its receptor. Various studies have shown remarkably beneficial effects of infliximab in the treatment of refractory Behçet disease (BD)-associated uveitis. In (1,2) infliximab therapy of BD uveitis requires the continuous administration with fixed-interval, and it is not established what cases are able to be discontinued. In this study, we evaluated clinical course of BD patients with uveitis after discontinuation of the infliximab therapy.

[Methods]
Medical records of 6 patients with BD uveitis, who had been treated with infliximab and were discontinued, were retrospectively reviewed. Visual acuities, the mean numbers of uveitis attack per a year, BD disease ocular attack score 24 (BOS24) (3), and systemic immunosuppressive agents in the period before initiation, during treatment and after discontinuation of the infliximab therapy were investigated.

[Result]
The mean age at the onset of uveitis, the mean period of uveitis until the initiation of infliximab treatment, the mean duration of infliximab treatment, and the mean follow-up period after discontinuation of infliximab treatment were 36.50 ± 7.06 years, 10.33 ± 14.36 months, 23.50 ± 12.60 months, and 20.67 ± 15.95 months, respectively. The mean logMAR converted from best-corrected visual acuity, the mean numbers of uveitis attack, and the mean BOS24 were 0.57 ± 0.68, 1.83±1.47, and 13.0 ± 2.93 before infliximab treatment, that were reduced to 0.19 ± 0.66, 0, and 1.16 ±0.83 at the last injection of infliximab, and 0.22 ± 0.42, 1.13 ± 1.75, and 1.10 ± 1.37 at last visit. After discontinuation of infliximab, uveitis attacks occurred several times in three patients, however remission of uveitis was maintained in other patients. Systemic corticosteroid was administrated for one patient before initiation of infliximab therapy, and was discontinued during infliximab therapy. Since one patient occurred ovarian tumor during infliximab therapy, chemotherapy was instituted instead of infliximab. However, infliximab therapy had not resumed after completing the chemotherapy for ovarian cancer, and systemic corticosteroid therapy was initiated after the sever uveitis attack.

Table 1. Patient’s profiles and reasons for discontinuation of infliximab

<table>
<thead>
<tr>
<th>Case</th>
<th>Age</th>
<th>Sex</th>
<th>Disease duration(months)</th>
<th>Treatment before IFX</th>
<th>Treatment period of IFX(months)</th>
<th>Reason for discontinuation</th>
<th>Treatment after IFX discontinuation</th>
<th>Follow up withdrawal(months)</th>
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<tr>
<td>1</td>
<td>45</td>
<td>M</td>
<td>2</td>
<td>PSL</td>
<td>39</td>
<td>Infusion reaction</td>
<td>None</td>
<td>8</td>
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<tr>
<td>2</td>
<td>37</td>
<td>M</td>
<td>24</td>
<td>Col</td>
<td>24</td>
<td>Infusion reaction</td>
<td>Col</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>37</td>
<td>F</td>
<td>1</td>
<td>None</td>
<td>17</td>
<td>Ovarian cancer</td>
<td>PSL</td>
<td>46</td>
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<tr>
<td>4</td>
<td>29</td>
<td>M</td>
<td>33</td>
<td>None</td>
<td>20</td>
<td>Infusion reaction</td>
<td>Col</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>59</td>
<td>M</td>
<td>33</td>
<td>Col</td>
<td>5</td>
<td>Allergy to IFX</td>
<td>Col</td>
<td>18</td>
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<tr>
<td>6</td>
<td>36</td>
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<td>1</td>
<td>Col</td>
<td>36</td>
<td>Patient’s intention</td>
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<td>4</td>
</tr>
</tbody>
</table>

IFX infliximab, Col colchicine, PSL prednisolone

[Discussion]
◆ Our study showed the favorable visual acuity after the discontinuation of infliximab therapy, and this result isn’t inconsistent with the previous report (4).
◆ Our study showed the better progress in logMAR converted from best-corrected visual acuity than other report (4). This is due to the low visual acuity when infliximab was initially given, therefore the early initiation of the infliximab treatment is recommended.
◆ In our study, 3 out of 6 patients developed relapse, this is considered to be due to insufficient duration of the infliximab treatment.
◆ However, the sample sizes might be insufficient, further clinical research should be performed in the future.

[Conclusion]
It was suggested that infliximab therapy might be discontinued in BD patients in whom the therapy was initiated early in the development of uveitis, and uveitis attack was sufficiently inhibited during the therapy more than 1 year.

[Reference]