Healing of psoriatic skin lesions, and improvement of psoriatic arthritis resistant to immunosuppressive drugs, after infliximab treatment

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During recent years, much has been learnt about the immunopathology of psoriasis and psoriatic arthritis (PsA). There has been increasing evidence that proinflammatory cytokines, in particular tumour necrosis factor α (TNFα), may play a central part in potentiating the inflammatory process. Both CD4+ and CD8+ T cells are found in psoriatic lesions.1 Thus most of the treatments for psoriasis and PsA are immunosuppressive.2 However, there are several patients refractory to treatment in whom blockade of TNFα by anti-TNFα inhibitors may be useful.3

Five patients (three male, two female; mean (SD) age 41.0 (3.3) years) with longstanding disease (7.9 (3.7) years) refractory to immunosuppressive drugs and corticosteroids were studied. Although some clinical improvement was seen in their musculoskeletal complaints, psoriasis was poorly controlled, requiring frequent inpatient admissions to hospital.

Patients were treated with intravenous infliximab (5 mg/kg, infusion time >2 hours), in a loading dose of 0, 2, 6, and 8 weeks thereafter for a period of 12 months. Patients were fully informed about the treatment and signed an informed consent. The area of skin affected was evaluated by the Psoriasis Area and Severity Index (PASI) score,4 while joint involvement was assessed by the Psoriatic Arthritis Responder Criteria (PsARC).5 The laboratory evaluation included C reactive protein (CRP; mg/l) and erythrocyte sedimentation rate (ESR; mm/1st h). All patients continued to receive the same doses of methotrexate (MTX) and ciclosporin A (CSA) during the study period, while the dose of steroids was tapered according to the patient’s response.

Of the five patients, three patients had sacroiliitis (two unilateral and one bilateral, stage III) and asymmetric oligoarthritis; one patient had polyarticular symmetric joint disease; and the other had polyarticular asymmetric joint disease. All patients had extensive plaque psoriasis with erythroderma, in two cases affecting 65–90% of the body surface area. The clinical response was rapid; after the third infliximab infusion about 90% of the skin lesions improved in all patients, and after the sixth infusion all patients had complete clinical remission and the skin was clear and healed (fig 1). A significant reduction of the PASI score and improvement of PsARC were noted, which were maintained throughout the study. This clinical improvement was associated with the reduction in the acute phase reactants (table 1). The drug was well tolerated, all patients completed the study and only a few patients had mild adverse events. After the third infusion two patients developed a sore throat, while another developed a urinary tract infection after the sixth infusion. In addition, one patient developed a mild allergic reaction after the third infusion. All patients completed the study and the adverse events resolved without sequelae.

Our observation confirms the results reported by others,6-8 who demonstrated a significant improvement in treating patients with PsA with infliximab. Their studies investigated primarily the articular component of the disease and to a lesser extent the cutaneous manifestations. As far as we...
know, our study is the first that shows complete healing of the cutaneous lesions in patients with widespread recalcitrant psoriasis. A significant improvement in the articular component was also noted. Another point to take into consideration is that in our study we used infliximab in combination with MTX, CSA, and steroids. The above combination was demonstrated to be efficacious and safe in treating patients with rheumatoid arthritis and may avoid the formation of human antichimeric antibodies responsible for infliximab inefficacy and adverse drug reactions.9 Finally, the absence of serious adverse events might also be attributed to the small number of patients investigated in this study.

The findings of the present open label study provide evidence that multiple infusions of infliximab are effective and safe in clearing recalcitrant widespread psoriasis. Further larger studies are required to confirm our results.

Table 1  Clinical and laboratory changes during infliximab treatment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Week 0</th>
<th>Week 6</th>
<th>Week 24</th>
<th>Week 52</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender joints score</td>
<td>6.4 (4.0)</td>
<td>1.6 (1.5)</td>
<td>1.8 (1.8)</td>
<td>1.4 (1.8)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Swollen joints score</td>
<td>2.6 (1.6)</td>
<td>0.2 (0.4)</td>
<td>0.2 (0.4)</td>
<td>0.2 (0.4)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Patient self assessment</td>
<td>6.9 (2.2)</td>
<td>2.5 (2.6)</td>
<td>2.4 (1.1)</td>
<td>2.1 (1.1)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Physician self assessment</td>
<td>6.7 (2.3)</td>
<td>2.4 (1.4)</td>
<td>2.4 (1.2)</td>
<td>2.5 (1.4)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>PASI score</td>
<td>51.2 (14.0)</td>
<td>10.0 (1.7)</td>
<td>0.8 (0.5)</td>
<td>0.8 (0.5)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>CRP (mg/l)</td>
<td>18.4 (13.7)</td>
<td>2.6 (5.8)</td>
<td>3.0 (3.3)</td>
<td>1.6 (2.2)</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>ESR (mm/1st h)</td>
<td>42.4 (18.0)</td>
<td>16.2 (12.5)</td>
<td>14.2 (8.8)</td>
<td>12.8 (7.7)</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

Results are shown as mean (SD).
*Wilcoxon test for pairs, comparison between week 0 and week 52.


