Tocilizumab for the treatment of Behçet uveitis that failed interferon alpha and anti-tumor necrosis factor-alpha therapy

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Background:
• Behçet uveitis (BU) is a multisystem inflammatory disorder characterized by recurrent inflammatory attacks.
• Immunomodulatory therapy is essential for the management of BU.
• In case of failure or intolerance of current therapeutic options including:
  • Corticosteroids, Azathioprine (AZA), Cyclosporine (CSA), Interferon alpha (IFNα), Anti-tumor necrosis factor-alpha (TNF-α)
  • Alternative biologic agents may be needed such as interleukin (IL)-6 inhibitor tocilizumab (TCZ).

Patients & Methods:
• A retrospective case series of 5 patients with refractory BU
• Indications:
  • Ongoing inflammation in 3 patients
  • Infusion reaction with infliximab in 2 patients
• Outcome measurements:
  • Visual acuity (VA)
  • Anterior chamber cell (ACC)
  • Vitreous haze
  • Laser flare meter (LFM) readings
  • Central macular thickness (CMT)
  • Fluorescein angiography (FA) score.
• Side effects were recorded.

Therapy and Outcome:
• 8mg/kg/month TCZ infusion
• Intravitreal dexamethasone implant was administered as bridging therapy in 2 patients.
• VA retained or improved in all patients.
• ACC and vitreous haze decreased to 0 if it was present.

Conclusions:
• In refractory BU, TCZ may be an effective and safe therapeutic option.
• TCZ also seems effective on uveitic macular edema.

Comments:
• Further prospective and controlled studies are needed to validate safety and efficacy of TCZ.

<table>
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<tr>
<th>Patient no</th>
<th>Age at presentation</th>
<th>Gender</th>
<th>Previous treatment</th>
<th>Duration of previous treatment (years)</th>
<th>TCZ duration (months)</th>
<th>Concurrent medication (mg/day)</th>
<th>Side effects</th>
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<td>F</td>
<td>CS, AZA, IFN, IFX</td>
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<td>8</td>
<td>AZA (100)</td>
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<td>AZA (100) CS (5)</td>
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<td>3</td>
<td>5</td>
<td>CS (5)</td>
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</table>

CS= Corticosteroid, AZA= Azathioprine, CSA= Cyclosporine, IFN= Interferon, IFX= Infliximab, ADA= Adalimumab, MMF= Mycophenolate Mofetil. TCZ= Tocilizumab.

Mean LFM readings (ph/ms) Mean CMT (µm) Mean FA score
Before TCZ 15.4 ± 2.7 324.7 ± 36.6 20.6 ± 5.4
After 3rd TCZ 7.5 ± 4.0 311.8 ± 60.6 15.8 ± 2.2
Final visit 5.0 ± 0.9 280.2 ± 34.1 9.3 ± 4.5

LFM= Laser flare meter, CMT= Central macular thickness, FA= Fluorescein angiography, ph/ms= photon/millisecond

Figures of patient 2:
Before TCZ treatment (A,B,C) and after 19 months (D,E,F).