**Introduction**

- Non-infectious uveitis represents a heterogeneous group of inflammatory intraocular diseases. Conventional therapy with corticosteroids and immunosuppressive agents may not be sufficient in refractory patients.
- Off-label use of biologic response modifiers has been studied as an alternative

**Purpose**

To describe the use and economic impact of biologic off-label therapy in patients with refractory non-infectious uveitis

**Material and Methods**

- Retrospective, observational study. We included patients with non-infectious uveitis treated with biologic agents between 2009 and June 2014.
- Patients were identified by reviewing off-label uveitis authorizations and data collection was obtained by electronic medical records.
- Individual costs were calculated considering the hospital acquisition prices.

**Results**

- 79 patients (117 different biologics drugs) were identified: 75% women, 41 16 years-old
- **Posterior uveitis** was the pathology were biologic treatment were most prescribed (*Table 1 and Figure 1*)

**Switching**

- The main **reason for switching** was: loss of efficacy (18.2% infliximab, 44.4% golimumab, 33% certolizumab, 11.8% infliximab) and side effects (9.1% adalimumab, 11.8% tocilizumab). 23.1% of anti-TNF and 20% of tocilizumab could be discontinued for stable disease.

**Economic Analysis (n=54)**

- Overall cost/patient varies from 2.030 to 98.250 € (Median: 12.940 €)
- The mean duration for each drug was 15.4, 18.6, 13.6, 4.9, and 11.3 months, until final follow-up date, for infliximab, adalimumab, golimumab, certolizumab and tocilizumab respectively until final follow-up date

**Fig 1. Anatomic uveitis classification**

![Anatomic uveitis classification](image)

**Tab 1. Anatomic diagnosis**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posterior uveitis</td>
<td>37 (46.8%)</td>
</tr>
<tr>
<td>Anterior uveitis</td>
<td>26 (32.9%)</td>
</tr>
<tr>
<td>Intermediate uveitis</td>
<td>5 (6.3%)</td>
</tr>
<tr>
<td>Panuveitis</td>
<td>11 (13.9%)</td>
</tr>
</tbody>
</table>

**Use of biologic off-label therapy (Fig. 2)**

- **85.5% of patients with anti-TNF** (14.5% tocilizumab)
- The most anti-TNF prescribed was **adalimumab** (n=55), followed by infliximab (n=33), golimumab (n=9) and certolizumab (n=3).
- Over **80%** of patients received one drug, 10% two, 9% three and only one patient received four.

**Fig 2. Biologic drugs prescribed**

![Cost associated with each drug](image)

**Conclusions**

- TNF-blockers and tocilizumab may benefit patients when conventional immunosuppressive therapy has failed or has been poorly tolerated. Given their cost as well as the lack of studies related to effectiveness and long-term safety data, these cannot be used routinely

Authors have no conflict of interest in this study