



POSTER PRESENTATION

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# Non-anti TNF biologic modifier drugs in non-infectious refractory chronic uveitis: the current evidence from a systematic review

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## Introduction

Non-infectious chronic uveitis is a serious and disabling sight-threatening disease accounting for up to 10% of pathologies leading to blindness. Currently, a step-by-step escalating immunosuppressive therapy is generally used, in children as well as in adults, and anti-TNF $\alpha$  biologic therapies have markedly increased the treatment options for sight-threatening uveitis refractory to conventional immune-modulatory therapy (DMARD) in addition to topical and/or systemic corticosteroids. However, a subset of patients fails to respond to TNF $\alpha$  blockers or is unable to tolerate these therapies and may therefore benefit from switching to another drug. In this clinical setting, the large availability of several different molecules, mostly off-label, poses the clinical question if it can be useful and safe to administer another class of biologic drugs, such as Abatacept or Rituximab, for patients with refractory auto-immune uveitis.

## Objectives

To summarize the evidence regarding the effectiveness and the safety of switching to a Non anti-TNF biologic modifier immunosuppressant treatment (NTT) currently available in clinical practice

## Methods

A comprehensive systematic review was undertaken involving a literature search between January 2000 and April 2013 was conducted using EMBASE, Ovid MEDLINE, Evidence Based Medicine Reviews-ACP Journal Club, Cochrane libraries, and EBM Reviews. Studies investigating the efficacy of NTT as biologic modifier

immunosuppressant medication for autoimmune chronic uveitis, refractory to topical and/or systemic steroid therapy, were eligible for inclusion. The primary outcome measure was the improvement of intraocular inflammation, as defined by the SUN working group criteria. We determined a combined estimate of the proportion of subjects responding to NTT.

## Results

We initially identified 526 articles, of which 89 were potentially eligible. From the selection process, a total of 10 retrospective chart reviews and 1 randomized single-blind controlled study, providing a total of 12 children and 34 adults, were deemed eligible. The studies were related to Rituximab (n=3), Abatacept (n=3), Tocilizumab (n=3) and single studies on Alemtuzumab and Anakinra. Before the NTT treatment, all the eligible subjects received several combinations of one or more DMARD and at least one anti-TNF strategy. Considering the observational studies, thus excluding 7 adults enrolled in the RCT, 8 children out of 12, and 18 adults out of 27 responded to NTT treatment: 0.66 was the combined estimate of the proportion of subjects improving on NTT treatment for children (95% CI: 0.58-0.81) and adults (95% CI: 0.64-0.79). Further statistical comparison between different NTT strategies was not possible due to the small sample size. The only RCT reported a success rate of 2 out of 7 adult Behçet's disease patients with a 6-month exposure to Rituximab

## Conclusion

Although randomized controlled trials are needed, the available evidence suggests that a NTT strategy may be useful in selected categories of autoimmune chronic uveitis in adults as well in childhood, refractory to a previous

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course of immunosuppressive treatment, both with DMARDs and anti-TNF $\alpha$ .

### Disclosure of interest

None declared.

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