**Title:**

Efficacy of anti-tumor necrosis factor (anti-TNF) treatment in a tertiary uveitis service in the United Kingdom

**Purpose:**

The NHS England July 2015 guidance not to fund anti-TNF treatment for refractory uveitis limits treatment escalation in patients with uncontrolled disease.  We performed a retrospective cohort study of patients requiring anti-TNF treatment at our unit for refractory uveitis to assess its efficacy.

**Methods:**

Retrospective case note review of patients receiving Infliximab or Adalimumab for severe refractory uveitis at our unit. Ophthalmic (Diagnosis, Snellen visual acuity, inflammation, interventions, medications) records were reviewed. Changes in parameters were analysed 2 years pre and post anti-TNF therapy.

**Results:**

30 patients, 56 eyes, received anti-TNF for severe refractory uveitis due to side effects or lack of efficacy of existing immunosuppressant medications between 2004 and 2015.

Mean age of presentation 33 years, with a F:M::15:15. 26 patients received Infliximab, 4 received Adalimumab.

Cohort encompassed 8 diagnoses: Behçet's disease 40%, idiopathic 23.3%, Sarcoidosis 10%, Birdshot Chorioretinopathy 16.7%, and other systemic diagnoses 10%.

Mean number of immunosuppression medications prior to anti-TNF treatment 3.3. Mean Snellen line gain 2 years pre and post anti-TNF -0.74 (SD 2.98) vs 1.26 (SD 1.97) respectively (p<0.01). Mean number of inflammatory flare ups pre and post anti-TNF, 3.9 (SD 2.3) vs 0.8 (SD 1.3) respectively (P<0.001). 91% reduced concurrent immunosuppression post anti-TNF therapy.

**Conclusions:**

Anti-TNF therapy provides a vital treatment option for preventing visual loss in our cohort of young patients with severe refractory uveitis.  Under the new NHS England guidance, 31% of our cohort would be ineligible for anti-TNF under other indications.