

AMERICAN UVEITIS SOCIETY

ARVO MEETING

2006 Abstracts

Title of Presentation: Intravitreal Bevacizumab (AvastinTM) as a potent treatment for refractory macular edema in patients with uveitis

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Purpose: Bevacizumab is a monoclonal antibody to vascular endothelial growth factor, which has been developed for the treatment of colorectal adenocarcinoma. Recently it has been successfully used for the treatment of age related macular degeneration with choroidal neovascularizations (CNV) and also in some cases of central vein occlusion. As there have been reports that it also influenced edema positively we used it as a last resort treatment in patients with severe sight threatening macular edema which had been refractory to previous treatments.

Patients and Methods: We treated patients with severe macular edema that had been treated unsuccessfully with at least 2 different anti-inflammatory drugs. Informed consent was given. Each patient was examined previously to the injection by an ophthalmologist and with optical coherence tomography (OCT) measurements. In most patients fluorescein angiography was performed as well. Injection was performed in a sterile environment; 2.5 mg of Bevacizumab was injected intravitreally. Follow-up exams were performed the day after injection, on week 1, 2, 4 and 6, including OCT measurements. Improvement was judged by gain in visual acuity (VA) ≥ 2 lines and thickness reduction in OCT.

Results: 5 Patients were injected since February 2005. Longest follow-up was 6 weeks (n=1), shortest 1 week (n=5). All had primary uveitis, 3 with intermediate, and 2 with posterior presentation. Uveitis was inactive at the time of treatment, but all patients had macular edema and 2 additional CNV. Every patient had been treated previously with oral corticosteroids and acetazolamide, additional triamcinolone injections in 3 patients and other immunosuppressive medication in 2 patients. All 5 patients had reduction in OCT measurements with a median of 63 μm (Range 6-305 μm) already 1 week after injection. Concurrent improvement in VA was seen in 4 of 5 patients, in 2 patients ≥ 2 lines, 2 patients improved only 1 line and one stayed the same but had CNV with macular scarring.

Conclusions: Intravitreal Bevacizumab seems to be a possible treatment in the management of refractory inflammatory macular edema of neovascular and non-neovascular origin. This is only a small case series and short follow-up. Longer follow-up will show if the effect is long-lasting or transient.

Title of Presentation: The safety of intraocular methotrexate in ocular diseases other than primary CNS lymphoma

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ABSTRACT

Purpose: To investigate whether intravitreal methotrexate could be safely administered and reduce vision loss in patients with diseases other than primary CNS lymphoma.

Design: A retrospective, small-case series.

Methods: Patients with an array of clinical conditions were treated with intravitreal methotrexate. There were 6 cases of uveitis (including 2 with pars planitis); 5 of severe fibrovascular proliferative diabetic retinopathy; 2 of birdshot retinochoroidopathy; and one each of indeterminate fibrovascular proliferation, epithelial downgrowth, and intraocular trauma. The cumulative dose in any patient did not exceed 400 µg.

For many patients, the injection was done in conjunction with other therapies. Concurrent medical therapy included topical anti-inflammatory drops, subconjunctival or intravitreal steroid, systemic chemotherapy and/or systemic steroid. In some cases, intravitreal injections were done in conjunction with or in the perioperative period of other intraocular surgery, including pars plana vitrectomy, with or without membrane stripping and silicone oil, and phacoemulsification with intraocular lens.

Visual acuity and clinical exam were recorded to assess the safety and efficacy of the injection.

Results: At last follow-up (mean, 4.1 ± 1.8 months), visual acuity was improved in 7 of 16 eyes, remained stable in 5, and decreased in 4.

Conclusions: Preservation of visual acuity in 12 of 16 study eyes suggests that a 400 µg intravitreal injection may be safe. Since the 4 remaining eyes had advanced preexisting pathology, loss of acuity in these eyes may be just as likely attributable to the natural history of the disease as to a single injection of methotrexate.

Title of Presentation: Primary Sclerosing Cholangitis and Uveitis: A Case Series

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ABSTRACT

Background: Primary sclerosing cholangitis (PSC) is a rare chronic cholestatic liver disease frequently diagnosed in association with inflammatory bowel disease (IBD). Although uveitis is associated with IBD and other systemic inflammatory diseases, an association between primary sclerosing cholangitis and uveitis has not been documented.

Methods: Six patients with both primary sclerosing cholangitis and uveitis were identified and a retrospective review of records was performed. Two index cases were identified from the Uveitis Clinic of Casey Eye Institute (CEI) of Oregon Health & Science University (OHSU) and another from the Portland area. Additional cases were identified by a web-based survey of members of the American Uveitis Society (AUS).

Results: Three males and three females were identified with a mean follow up of 5 years (range 0-13). Mean age at diagnosis of uveitis was 40 (range 22-63) and mean age at diagnosis of PSC was 37 (range 23-49). Three patients were diagnosed with uveitis prior to PSC. All patients had a chronic course. Vitreous involvement was prominent in five. One patient had hypopyon with a quiet eye and another had recurrent fibrinous anterior chamber disease. Four had unilateral involvement. Complications from the uveitis included cataract in five patients, cystoid macular edema in three and glaucoma in two. One patient had suspected Crohn's disease and two had ulcerative colitis. One patient with ankylosing spondylitis, which is not known to be associated with sclerosing cholangitis, had a granulomatous uveitis inconsistent with ankylosing spondylitis. Two additional patients had joint disease, possibly inflammatory.

Conclusion: Primary sclerosing cholangitis has a prevalence of roughly 1 per 10,000 in the general population and would thus be unexpected among the 2,647 patients evaluated to date in our clinic. A coincidental association cannot be excluded by our data but seems unlikely

given the rarity of the two inflammations and the consistent chronicity of the uveitis. Uveitis may therefore be an extra-hepatic manifestation of primary sclerosing cholangitis.

Title of Presentation: An Analysis of Recurrence Patterns Associated with Toxoplasmic Retinochoroiditis

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ABSTRACT

AN ANALYSIS OF RECURRENCE PATTERNS ASSOCIATED WITH TOXOPLASMIC RETINOCHOROIDITIS

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Purpose. To determine whether the pattern of recurrent toxoplasmic retinochoroiditis episodes is consistent with random occurrence or clustering over time; and to identify factors that influence the risk of recurrence.

Design. Longitudinal cohort study.

Methods. We reviewed data from a prospectively designed database that includes information from serial examinations of 143 patients with ocular toxoplasmosis in the Netherlands. For each patient, we collected data on gender, congenital versus post-natal acquisition of *Toxoplasma gondii* infection, and age at first onset of ocular disease. For each episode of active retinochoroiditis, we determined patient age, duration of time since first onset of ocular disease, eye involved, and interval since last episode. Data on follow-up interval after most recent episode were also collected. To investigate whether episodes occurred randomly over time or showed clustering, we estimated recurrence risk as a function of disease-free interval since an active episode using nonparametric curve estimation. The influence of host and disease factors on recurrence risk was determined using proportional hazards regression.

Results. Duration of follow-up ranged from 0.3-40 years (total 1024 patient-years). The pattern of episodes showed evidence of clustering. Multivariate analysis showed that the relative risk (RR) of recurrence decreased by 17% (RR 0.83 [0.70-0.98], $p=0.028$) for each 10-year increase in age at first episode, and declined by 71% (RR 0.29 [0.22-0.38], $p < 0.001$) with each 10-year interval since first episode. In some patients, late clustering of episodes occurred after a prolonged disease-free interval.

Conclusion. Recurrent toxoplasmic retinochoroiditis does not appear to be a random event. The risk of recurrence decreases with time since first onset of ocular disease, although clusters may occur after prolonged disease-free intervals.

Title of Presentation: Multifocal Choroiditis with Panuveitis (MFCPU) and Punctate Inner Choroidopathy (PIC): Comparison of clinical characteristics at presentation

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ABSTRACT

Purpose: To compare multifocal choroiditis and panuveitis (MFCPU) and punctate inner choroidopathy (PIC) by examining clinical characteristics at presentation.

Design: Cross-sectional study.

Methods: Sixty-six patients (122 eyes) with MFCPU and 12 patients (21 eyes) with PIC were evaluated from January 1984 through June 2005 in a single-center, academic practice. Demographic and clinical information on patients diagnosed with MFCPU and PIC was collected at the initial visit to our clinic. Data collected included: demographic information, duration of disease prior to presentation, corticosteroid treatment, visual acuity at presentation, presence of intraocular inflammation, choroidal neovascularization, and attendant complications of intraocular inflammation including cataract, cystoid macular edema, and epiretinal membrane.

Results: Women were affected more often than men in both diseases (MFCPU: 75%, PIC: 100%). The median age of patients with MFCPU was 45 years old at presentation and 29 for patients with PIC ($p=0.007$). Prior to presentation, the duration of disease was similar in both MFCPU (median: 1 month, range: 0-256 months) and PIC (median: 3.7 months, range: 0-148 months). Patients with MFCPU had active anterior uveitis or vitreous inflammation at the time of presentation more frequently than patients with PIC (MFCPU: 53.8%, PIC: 0). Patients with MFCPU had a higher frequency of complications such as cataracts (31.6%), CME (13.6%), and ERM (4.6%), whereas patients with PIC had none. CNV was more frequent in PIC (PIC: 75%, MFCPU: 27.7%, $P=0.002$); however, those in the MFCPU group were more likely to have initial visual acuities of 20/50 or worse (20%, $P=0.03$) and 20/200 or worse (15.2%) in the better seeing eye.

Conclusions: Multifocal choroiditis and panuveitis and PIC appear to be two separate diseases that have different clinical characteristics at presentation. Punctate inner choroidopathy affects a younger group of patients. Patients with MFCPU have a higher frequency of poor vision at presentation despite a lower frequency of CNV.

Title of Presentation: High Dose Infliximab in Refractory Chronic Pediatric Non-Infectious Uveitis

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ABSTRACT

Purpose: To report our experience with high dose infliximab as efficacious therapy in refractory chronic pediatric non-infectious uveitis.

Methods: Retrospective chart review of all patients through our institution on high dose infliximab through our institution for chronic refractory non-infectious uveitis. Ophthalmic exam, medical history, and clinical course.

Results: Five pediatric patients with chronic uveitis who had failed methotrexate and/or mycophenolate therapy were given high dose infliximab (15-20mg/kg q 6 weeks), and in all cases within two months of therapy dramatic resolution of inflammation occurred permitting reduction of all concomitant topical and immunosuppressive regimens. All patients had uveitis for more than six months. Patients had a variety of concomitant diagnosis including Crohn's Disease, (TINU) tubular interstitial nephritis and uveitis syndrome, epiretinal membrane, and aphakia. One patient developed a diffuse herpetic eruption requiring acyclovir.

Conclusion: High dose infliximab needs further investigation as therapy for non-infectious chronic refractory pediatric uveitis.

Title of Presentation: NEW PERSPECTIVES ON PUNCTATE INNER CHOROIDOPATHY: ANALYSES OF SURVEY OF SUBJECTS WITH PIC

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ABSTRACT

PURPOSE: To evaluate the demographics and clinical features of patients with punctate inner choroidopathy (PIC).

DESIGN: Prospective, non-comparative survey study.

PARTICIPANTS: Members of the Punctate Inner Choroidopathy (PIC) Society who have been diagnosed with PIC.

METHODS: A survey was designed and posted on the website of the PIC Society, and members of the Society were invited to participate. Sixty-two patients with PIC previously diagnosed and confirmed by uveitis specialists, completed the survey.

MAIN OUTCOME MEASURES: Demographics, presenting symptoms, disease course, treatment regimens with subjective and objective assessments of response, and ocular complications.

RESULTS: Of the 62 participants who completed the survey, 89% were women, 97% Caucasian, and 86% were myopic. The mean age of the participants was 30 years (range 15 to 53 years). Reported presenting symptoms of PIC included blind spots (94%), blurred vision (85%), flashes of light (72%), floaters (71%), light hypersensitivity (68%), wavy lines (63%), loss of peripheral vision (27%). Thirty-three percent of participants reported recurrent symptoms before treatment. The majority of patients (87%) had received treatment, most commonly systemic corticosteroids (61%) and intraocular corticosteroids (24%). Sixteen percent of patients reported being treated with at least one immunosuppressive drug during the course of their disease. At the time of the survey, 70% of participants thought their condition was stable or was improving on treatment, and 82% reported that their ophthalmologists indicated that their condition was either stable or improving on treatment. Seventy-two percent of surveyed patients had been diagnosed with choroidal neovascularization (CNV) and 60% with subretinal fibrosis (SRF) in at least one eye. In 78% of patients, the onset of either or both of these complications occurred less than one year after the diagnosis of PIC.

CONCLUSIONS: In this survey of 62 patients with PIC, the majority of respondents were young Caucasian myopic women, who experienced blind spots and blurred vision as initial symptoms. Development of ocular complications (CNV and SRF) occurred in the majority of patients, typically within the first year of diagnosis. Corticosteroids and immunosuppressive drugs commonly were employed to treat PIC.

Title of Presentation: INFLIXIMAB FOR THE TREATMENT OF RECALCITRANT UVEITIS
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ABSTRACT

Purpose: To evaluate the effectiveness of infliximab infusions in patients with chronic recalcitrant uveitis.

Methods: Clinical charts of nine patients with chronic recurrent uveitis who were seen at the National Eye Institute and treated with infliximab infusions between 2003 and 2006 were retrospectively reviewed. Infliximab was started at a dose of 3mg/kg if the uveitis was clinically quiet at the time of infliximab initiation and at 5mg/kg if it was active. Infliximab was administered at baseline, 2 weeks as the loading dose and every 4 weeks thereafter. The frequency of infusions was decreased down to every 6 weeks after the 1st 4months of therapy in some patients.

Results: There were 5 patients with Behçet's disease, 1 with sarcoidosis, 1 with VKH and 1 with JRA-associated uveitis and 1 with idiopathic retinal vasculitis. Three of the patients were female and 6 were male and the average age was 39.6 (range: 20-74). Average duration of uveitis was 9.4 years (range: 4-20), average follow-up at NEI for this group of patients was 53.3 months (range: 35-216) and average follow-up since the initiation of infliximab was 23.2 months (range: 10-33). All patients had a history of being treated with combinations of ≥ 2 systemic immunosuppressives in the past and had developed intolerance and/or adverse events to these. Infliximab was started when uveitis was active in 5 patients and when quiet in 4. Among these 5 patients average time to quiescence was 3 weeks. Prior to initiation of infliximab average number of systemic immunosuppressives was 2.5 (range: 1-4) and after infliximab this was 1.5 (range: 0-3). All patients achieved a decrease in the number or the dose of immunosuppressives with infliximab treatment except for one patient. Average recurrence rate of uveitis was 3 per year prior to initiation of infliximab and it was 0.2 per year while on infliximab treatment; seven of the 9 patients achieved a complete quiescence with no flare-ups while on infliximab in the absence of additional immunosuppression. All patients either maintained or gained an average of 10 ETDRS letters of acuity during treatment except for one patient with Behçet's disease who had retinal detachment following silicone removal during treatment period. Side effects attributable to infliximab included a skin abscess in one patient, oral candidiasis in another patient and non-TB mycobacterial pneumonia in another patient. Infliximab had to be stopped in 3 patients secondary to side effects in one patient (pneumonia), and secondary to liver enzyme elevation in a patient with ETOH abuse and continuing smoldering capillary drop-out in one of the patients with Behçet's disease.

Conclusion: Infliximab may be considered as a viable option in patients with severe chronic recalcitrant uveitis who have developed intolerance to conventional immunosuppressives; however patients would be monitored closely for potentially serious side effects.

Title of Presentation: UTILITY OF ELECTRON MICROSCOPY FOR THE DIAGNOSIS OF OCULAR MUCOUS MEMBRANE PEMPFIGOID

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ABSTRACT

Purpose: To evaluate the role of electron microscopy (EM) for the diagnosis of ocular mucous membrane pemphigoid (MMP) among patients with cicatrizing conjunctivitis.

Methods: 128 patients with cicatrizing conjunctivitis referred for the evaluation from January 1985 to February 2002 who underwent conjunctival biopsy and evaluation with EM and direct immunofluorescent (DIF) techniques were evaluated retrospectively. The diagnosis of each patient was based on DIF techniques, and the diagnosis from EM was compared to the DIF diagnosis from the same patient in order to evaluate the validity of the EM diagnosis.

Results: One-hundred twenty-six of 128 conjunctival biopsies were available for evaluation of EM findings. The percent agreement between two readings from the same observer (intra-observer agreement) was 92%, and the percent agreement between two independent observers (inter-observer agreement) was 78%. The sensitivity and specificity of EM for the diagnosis of ocular MMP were 51% and 72%, respectively. The positive predictive value of EM for the diagnosis of ocular MMP was 49%.

Conclusions: The reproducibility of EM findings was good as evidenced by high percent agreement for both intra- and inter-observer measurements. However, the sensitivity and positive predictive value of EM for the diagnosis of ocular MMP were both low. These findings suggest that EM has limited usefulness for the diagnosis of ocular MMP.

Title of Presentation: TNF inhibitors and uveitis – is there a causal relationship?

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ABSTRACT

Aim: Although population based studies in patients with ankylosing spondylitis indicate that tumor necrosis factor (TNF) inhibitors prevent uveitis, numerous anecdotal reports implicate etanercept as a cause of uveitis.

Method: Cases of uveitis occurring in the United States associated with etanercept, infliximab or adalimumab therapy that were reported to the World Health Organization adverse drug events database and the National Registry of Drug-Induced Ocular Side Effects prior to January 1st, 2006, were reviewed.

To minimize the inclusion of patients whose uveitis resulted from the underlying disease, patients known to have ankylosing spondylitis, juvenile idiopathic arthritis, or psoriatic arthritis were excluded. In addition, if a systemic disease was not indicated, cases were excluded if treatment with the TNF inhibitor commenced after the FDA drug approval date for each of these listed diseases, as were all cases of patients under the age of 18 years. This left a group of patients who were most likely to have rheumatoid arthritis. As this disease is not typically related to uveitis, reported cases in this group were more likely causally related to the medication.

Results: Overall, there were 43 reported cases of uveitis associated with etanercept, 14 with infliximab and 3 with adalimumab. In contrast, optic neuritis was reported in 22 cases treated with etanercept, 40 cases with infliximab and 4 with adalimumab. Adalimumab associated uveitis was deemed too uncommon for further study.

Using the *a priori* exclusion criteria outlined in the methods, 21 cases associated with etanercept and 10 cases associated with infliximab were excluded. This left 22 suspicious cases associated with etanercept and 4 suspicious cases associated with infliximab. If one estimates that as of 2004, in the United States, etanercept and infliximab were used by comparable numbers of patients with RA, the increased incidence of uveitis in etanercept treated patients is highly significant ($p < 0.001$ by chi square).

Conclusion: Etanercept therapy has a significantly greater incidence of uveitis in comparison to infliximab. Although this study has inherent flaws given the voluntary reporting of cases, these results support previous case reports and suggest that this association is drug specific and is not related to TNF inhibitors as a whole.

Title of Presentation: Clinical Outcomes in Patients with Multifocal Choroiditis with Panuveitis (MFCPU)

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ABSTRACT

Purpose: To describe the risk of ocular complication and visual acuity loss among patients with multifocal choroiditis with panuveitis (MFCPU) and to describe the effect of therapy on those risks.

Methods: A retrospective cohort study was performed. Data were collected on 122 eyes from 66 patients with MFCPU that were evaluated at the Johns Hopkins Medical Institution from 1984 through June 2005. Demographic and clinical information were collected on these patients, and the development of ocular complications including choroidal neovascularization (CNV), and the loss of visual acuity were determined from these data.

Results: Among eyes with MFCPU the frequency of 20/50 or worse vision or 20/200 or worse vision at presentation were 55% and 38% respectively. Choroidal neovascularization was the leading cause of poor vision at presentation being observed in ~20% of affected eyes. The rates of vision loss to 20/50 or worse and 20/200 or worse were 0.19/eye-year (EY), and 0.12/EY in affected eyes and 0.07/person-year (PY) and 4%/PY in better seeing eyes. Again, CNV was the most common cause of incident vision loss accounting for approximately 45% of incident vision loss. Other posterior pole complications included epiretinal membrane, and cystoid macular edema. When taken in combination, the rate of any posterior pole complication was 13%/eye year among eyes affected with MFCPU. Use of immunosuppressive drug therapy was associated with an 83% reduction and the risk of posterior pole complications ($p = 0.004$) and with a 92% reduction in the risk of legal blindness in affected eyes ($p=0.05$).

Conclusions: Treatment with immunosuppressive drug therapy may improve visual acuity outcomes in patients with MFCPU by preventing the development of sight threatening posterior pole complications such as CNV, epiretinal membranes, and cystoid macular edema.

Title of Presentation: Case report: Syphilitic Uveitis in AIDS.

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ABSTRACT

Case Report: The patient was initially evaluated at the Kentucky Lions Eye Center three weeks after developing a corneal abrasion while changing a contact lens. He had been treated with topical Bacitracin and Moxifloxacin, while complaining of mild discomfort and progressive loss of vision in the left eye. The patient had been diagnosed with AIDS in 1990, and was being treated with Ziagen, Epivir and Viramune. His CD4 count was 278.

Best corrected visual acuity was 20/25 OD and HM OS. The anterior segment of the right eye was normal. Ophthalmoscopic examination revealed scattered yellowish subretinal infiltrates inferonasal to the optic disc. In the left eye there was bullous keratopathy. There was a 4 mm irregular yellowish mass in the anterior chamber, in the interstices of the iris, accompanied by fibrin and some scattered hemorrhage. There was no view of the posterior segment, but the retina was attached on ultrasonic examination.

A tentative diagnosis of syphilitic chorioretinitis OD and syphilitic gumma OS was made. The RPR was positive at 1:512 and the CSF VDRL was positive at 1:4 dilution. The patient was started on a dose of IV Penicillin 4 million units every 4 hours, which was gradually tapered. One week later, the subretinal infiltrates in the right eye had resolved, and the vision in the left eye had improved to 20/40, as the anterior chamber mass was much smaller. One month later, the vision was 20/20 OD and 20/30 OS. The anterior chamber mass in the left eye had completely resolved.

Conclusions: There are protean manifestations of ocular syphilis. In our patient, both anterior and posterior lesions resolved with antibiotic therapy.

Title of Presentation: Intraocular Toxicity of Rituximab

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ABSTRACT

Purpose: To determine the toxicity of 1mg of intraocular rituximab and to present a case report of a patient treated with intravitreal rituximab.

Design: Animal study and one human case report.

Methods: Rituximab 1mg/0.1cc was injected in the vitreous of one eye of 4 Dutch-belted rabbits, with the fellow eye serving as a control. At one month the rabbits were sacrificed and the eyes examined by light microscopy. One patient with intraocular large cell lymphoma was treated with a 1 mg injection of rituximab and 200 mcg methotrexate during vitrectomy.

Results: The treated rabbit eyes and the control eyes showed no evidence of ocular toxicity at one month following injection. The vision of the patient at one month was vision of 20/40 without evidence of toxicity in the treated eye

Conclusions: Intravitreal rituximab at a dose of 1mg does not appear to cause toxicity in rabbit eyes and in the eye of one patient.

Title of Presentation: Macular Thickening in Typical Acute Anterior Uveitis: An Optical Coherence Tomography Study

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ABSTRACT

Purpose: To elucidate whether macular oedema is a feature of acute, non-granulomatous anterior uveitis (AAU).

Design: Observational, prospective case series.

Methods: Fifteen consecutive patients with unilateral AAU were prospectively recruited.

Patients were included if they had AAU with one or more of the following: Reduced visual acuity ($\leq 6/9$), fibrinous anterior chamber exudate, posterior synechiae or hypopyon. Optical coherence tomography (OCT) was performed within seven days of onset. Nine thickness measurements of the macula were compared between the affected and healthy eye of each patient. Twelve healthy individuals served as controls.

Results: Fourteen of the 15 patients were HLA B27 positive. Thirteen patients demonstrated sub-clinical macular thickening by OCT. Uveitic eyes showed 1% to 23% thickening compared to their contralateral, unaffected eyes (mean=11.2%). Random macular thickness asymmetry in healthy controls ranged from 1% to 3% (mean=1.6%, $p=0.0001$). Similarly, total macular volume was increased by a mean of 9.95% in subjects compared to random asymmetry of 0.75% in controls ($p<0.0001$). Macular thickening by OCT persisted longer than clinical AAU, and at six months was still present in 45% of patients despite apparent complete clinical resolution.

Conclusion: Transient, diffuse, sub-clinical macular thickening is a frequent phenomenon that is often overlooked in patients with typical AAU. Overt cystoid macular oedema may represent

the severe end of a spectrum of macular changes occurring in AAU, rather than an all-or-none phenomenon.

Title of Presentation: Mucor Endophthalmitis After Cataract Extraction in a Systemically Stable Immunocompetent Patient

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ABSTRACT

Mucormycosis usually occurs in immunocompromised or uncontrolled diabetic patients, and is often fatal. The only report of mucor endophthalmitis describes an uncontrolled diabetic with sudden vision loss, proptosis, eyelid gangrene, and motility restriction who died before debridement. We present a well-controlled diabetic with 4 months of culture-proven mucor endophthalmitis after cataract surgery. He was asymptomatic other than eye pain and decreased vision. Despite intravenous and intravitreal amphotericin B, the ocular disease worsened and the eye was enucleated. Histopathology with special stains confirmed mucor panophthalmitis. He remains systemically stable and asymptomatic 17 months after initial diagnosis of mucor endophthalmitis. Mucormycosis may be a cause of endophthalmitis, and should be considered even in relatively healthy patients.

Title of Presentation: The Multicenter Uveitis Steroid Treatment Trial

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ABSTRACT

Uveitis refers to several ocular disorders characterized by intraocular inflammation, which in the aggregate are a major cause of visual loss and blindness in the United States. Intermediate uveitis, posterior uveitis, and panuveitis are generally the more severe forms of uveitis, with the highest risk of vision loss, often requiring long-term systemic treatment. The fluocinolone acetonide intraocular implant is a surgically implanted reservoir of corticosteroid designed to last approximately 2.5 years in order to provide long-term control of uveitis.

The primary objective of the Multicenter Uveitis Steroid Treatment (MUST) Trial is to compare the efficacy of standardized systemic therapy versus fluocinolone acetonide implant therapy for the treatment of severe cases of non-infectious intermediate uveitis, posterior uveitis or panuveitis. Patients with active uveitis will be randomized, with a 1:1 allocation ratio, to treatment with either the fluocinolone acetonide implant or standardized systemic therapy consisting of oral corticosteroids and supplementary immunosuppressive drugs when indicated, according to standardized guidelines. The design outcome variable for the study is visual acuity; other outcomes include other aspects of visual function, success in controlling uveitis, retinal morphologic outcomes, quality of life, cost-effectiveness, and occurrence of potential ocular and systemic complications of uveitis and of therapy.

AMERICAN UVEITIS SOCIETY MEETING

Title of Presentation: Autoimmune Th2-mediated dacryoadenitis in MRL/MpJ mice becomes Th1-mediated in IL-4 deficient MRL/MpJ mice

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ABSTRACT

Title: Autoimmune Th2-mediated dacryoadenitis in MRL/MpJ mice becomes Th1-mediated in IL-4 deficient MRL/MpJ mice

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Abstract: MRL/MpJ-*fas*⁺/*fas*⁺ (abbreviated MRL/+) and MRL/MpJ-*fas*^{lpr}/*fas*^{lpr} (MRL/lpr) are congenic substrains of MRL/MpJ mice, both of which spontaneously develop autoimmune dacryoadenitis and sialadenitis and are a model for the human disorder Sjögren's syndrome. The dacryoadenitis in both substrains is Th2 in nature, with a predominance of CD4+ T cells, little IFN- γ , little IL-12, and substantial IL-4 and IL-10. MRL/MpJ mice with a defective *IL-4* gene, resulting in a loss of IL-4 production, (both MRL/+*IL-4*tm/*IL-4*tm [MRL/+*IL-4*tm] and MRL/lpr-*IL-4*tm/*IL-4*tm [MRL/lpr/*IL-4*tm]) mice develop dacryoadenitis similar in age of onset and severity to that in MRL/MpJ mice with an intact *IL-4* gene. Among MRL/MpJ mice of both substrains homozygous for a defective *IL-4* gene, there was substantial immunohistochemical staining in the dacryoadenitis for IFN- γ and little staining for IL-13 (MRL/+*IL-4*tm 67% of inflammatory cells IFN- γ -positive v 0.8% IL-13-positive, P=0.001; MRL/lpr/*IL-4*tm, 67% v 1.2%, P=0.002). Greater CD86 (B7-2) than CD80 (B7-1) expression was present in the lacrimal gland inflammation of MRL/+*IL-4*tm mice (11% v 3%, P=0.003) and MRL/lpr/*IL-4*tm mice (10% v 3%, P=0.002). These results suggest that a Th2-mediated autoimmune process can be converted to a Th1-mediated one by the elimination of IL-4, and that CD86 costimulation may induce a Th1 process in the absence of IL-4.

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