



THE OCULAR IMMUNOLOGY  
AND UVEITIS FOUNDATION

*Dedicated to Eye Disease Cure and Education*

## **Therapeutic Algorithm for Recurrent Anterior Non-Granulomatous(e.g. HLA-B27-Associated) "Autoimmune" Uveitis**

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Dan Gordon of Cornell got it right as far back as 1952 when he realized that topical steroids represented a breakthrough in the medical therapy of patients with uveitis. Further, he even understood early on that one should be bold and "use enough soon enough" to get the job done, and then slowly taper and discontinue the medication before steroid-induced side effects were produced. We believe Gordon's philosophy of the use of steroids for the care of uveitis is perfect, and therefore, advocate their use just as he did forty years ago. We use topical preparations first (my favorite is Lotemax for mild to moderate uveitis because of the reduced propensity to raise intraocular pressure); the compliance of patients to vigorously shake a bottle of medication prior to instilling a drop every hour to every thirty minutes is quite poor, and therefore, solutions are probably preferable (despite the reputed increased penetration of prednisone acetate suspensions) simply because patients taking suspensions not shaken properly don't really receive the reputed 1% drop each time they apply the medication. We apply steroid drops to our uveitis patients every thirty to sixty minutes while awake, mydriatic/cycloplegic therapy as well. If the patient's uveitis is severe (3 to 4 plus or hypopyon) we supplement the aforementioned topical therapy with regional injection therapy (usually with Triamcinolone acetonide, 40 milligrams) delivered through the inferior preorbital septum. We do not believe that there are significant advantages to delivering the drug subtenons in the superotemporal region of the globe, and data would indicate that the prevalence of increased pressure rises is probably higher through the latter route, and patient acceptance for repeated injections is certainly lower with the latter route. Depo preparations are not used unless the patient has been demonstrated not to be a "steroid responder" as regard to pressure rises, and the patient has derived substantial benefits from shorter acting steroid injections, but has relapsed within two weeks of such injections. Systemic steroids are also employed in cases of severe uveitis, typically beginning with a dose of one milligram per kilogram body weight per day, with tapering beginning seven days after initiation of therapy, and usually discontinuing within 3-4 weeks of initiation.

Our tolerance for long-term steroid use is extremely limited. Patients whose uveitis recurs after steroid treatment are offered the use of an oral nonsteroidal anti-inflammatory drug, such as Naproxen 500 milligrams, twice daily, with the usual warnings of the GI tract, the need for periodic monitoring by us, etc.

Our experience has strongly suggested that such therapy often (perhaps as much as 60% of the time) enables one to withdraw steroids being used for the current recurrence without yet another recurrence after the steroids are tapered and withdrawn. If this is the case, then we maintain our patients on long-term oral non-steroidal anti-inflammatory drug therapy for approximately two years before an attempt to stop that medication.

For patients who continue to have recurrent inflammation despite the use of an oral nonsteroidal anti-inflammatory drug chronically, we apprise them of the potential risks and benefits of immunomodulatory therapy. Although our first choice drug is usually low dose once a week methotrexate, the choice of an agent is typically predicated on the basis of patient age, sex, medical history, and social history. For example, we would not choose methotrexate therapy for a person who was a frequent and chronic user of alcohol; nor would we choose methotrexate for a patient who had previously had an episode of hepatitis or who was known to be hepatitis B or C positive. Similarly, we would not choose cyclosporin for a patient who had only one kidney, who had uncontrolled hypertension, or who had known renal disease. Clearly, most ophthalmologists are not interested in taking on the responsibility for such decision making, much less the longitudinal and monitoring of patients placed on immunomodulatory therapy. But a collaboration between the ophthalmologist and a chemotherapist typically can work beautifully, with the ophthalmologist apprising the chemotherapist of the state of the ocular inflammation (the goal being complete abolition of all active inflammation) and the chemotherapist then monitoring the patient and telling the ophthalmologist whether or not more drug can be safely used, a switch in medication should be made to achieve the goal, etc.

Uveitis is the third leading cause of blindness in the United States. The prevalence of blindness secondary to uveitis has not changed in the past forty years. We believe that until increasing numbers of ophthalmologists adopt a philosophy of complete intolerance to even low grade inflammation chronically, no additional progress will be made in this area. The vast majority of patients are cared for, after all by ophthalmologists in general practice, not by the referral center uveitis specialists. We hope that providing information such as this on this Web Site will stimulate increasing numbers of ophthalmologists in practice to seriously consider taking this last step on the stepladder algorithm of therapy for uveitis and collaborate with chemotherapists in the care of patients whose uveitis continues to be a significant problem despite the more traditional therapeutic approaches.