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Systemic Treatment of Ocular Inflammatory Disease (OID)

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Most treatable eye diseases are managed with eye drops. In fact, the number of instances in which patients seen in a general ophthalmology office are prescribed systemic medications (i.e., medications taken orally or by other non-topical routes) is vanishingly small. Perhaps, because of this and other factors, most ophthalmologists eventually consider treating patients with an eye problem only rarely with systemic medication. While this might be perfectly appropriate, in some instances, such as in patients with uveitis, we believe that failure to strongly consider systemic therapy for this condition will hinder progress in reducing the prevalence of disease-related blindness.

Steroid eye drops, with or without cycloplegic eye drops, remain the mainstay and cornerstone of treatment for patients with uveitis during the acute phase. However, some patients with uveitis continue to experience recurrent episodes of active inflammation during corticosteroid tapering or after treatment discontinuation. Currently, almost all ophthalmologists recognize that patients with uveitis and other forms of ocular inflammatory disease (OID) cannot remain on topical corticosteroids indefinitely. Chronic use of steroid eye drops is associated with significant complications, including cataract formation, steroid-induced glaucoma, and an increased susceptibility to ocular infections, including herpes simplex virus infection.

The all-too-frequent scenario, therefore, is treatment of the uveitis with steroid eye drops, resolution of the inflammation, tapering or discontinuation of the drops, recurrence of the uveitis, reinstitution of steroid therapy, and repetition of the vicious cycle.

We believe that there is a better approach, and, in fact, the study data supports this idea. Our philosophy over the past few decades has been to tolerate neither low-grade chronic uveitis nor prolonged excessive steroid use. Consistent with this philosophy, we start patients with

recurrent or chronic OID on immunomodulatory therapy (IMT) using a "stepladder" approach.

The Step ladder approach means starting with a less potent IMT agent that has a more favorable adverse-effect profile and then increasing potency if the inflammation is unresponsive or the initial therapy is not tolerated. The next step on the stepladder, after initial corticosteroid therapy, is oral nonsteroidal anti-inflammatory drugs (NSAIDs). NSAIDs include aspirin, ibuprofen, and naproxen, etc. Unless a patient has a contraindication to NSAIDs, such as a peptic ulcer, we place patients with OID on NSAIDs and then attempt to taper the topical steroid drops, expecting these medications to help prevent recurrence. NSAIDs are effective in approximately 70% of selected patients. In the 30% of patients who do not respond to NSAIDs, other systemic immunosuppressive or immunomodulatory therapies—sometimes referred to as "chemotherapy" —are employed. This term is placed in quotation marks simply because it does not refer to the type of chemotherapy most patients associate with the word—that is, cancer-directed therapy. Rather, it refers to the type of chemotherapy used for inflammatory diseases, typically prescribed by rheumatologists for patients with severe rheumatoid arthritis, by dermatologists for patients with severe psoriasis, or in the management of certain blistering dermatologic diseases. If conventional immunomodulatory or chemotherapy fails, then biologics are employed or combination therapy.

This is the area of systemic drug therapy for ocular disease in which most ophthalmologists are uncomfortable, primarily due to lack of familiarity and experience. Ophthalmologists are not accustomed to using these medications and often carry with them concerns learned in medical school about the risks of immunosuppressive and chemotherapeutic drugs, typically as used in solid organ transplant recipients and patients with malignant disease. However, those risks are simply not the same as those associated with low-dose, single-agent immunosuppressive chemotherapy regimens used by rheumatologists, dermatologists, and ocular immunologists in the management of non-malignant inflammatory disease. The potential for drug-induced "mischief" exists; but, when used appropriately, the likelihood of significant drug-related complications is quite small. Of course, these medications must be managed by a provider who, by virtue of training and experience, is an expert in their use, and as the patient you are reliable, adherent, and maintain regular follow-ups with blood monitoring tests.

Currently, with the use of a wide range of IMTs, many sight-threatening OIDs, such as serpiginous choroiditis, birdshot chorioretinopathy, and ocular cicatricial pemphigoid, can be successfully treated and even be cured. However, more ophthalmologists should recognize the value of systemic IMTs in the management of patients with OID.