

The Role of Uveitis in Other Diseases

RAJIV SHAH, MD, KRESGE EYE INSTITUTE

Thomas Albin, MD, moderator of the Uveitis Resource Center, spoke with Rajiv Shah, MD, of the Kresge Eye Institute about the Role of Uveitis in Other Diseases. Their conversation follows:

Thomas Albin, MD: *When a patient presents with acute episodic anterior uveitis, what clinical factors do you consider when making your diagnosis?*

Rajiv Shah, MD: I start by making sure there's been no trauma and then I aim to get a sense of if there are any relevant social or auto-immune issue before moving on to examining the eye -- keeping in mind that cell in the anterior chamber does not always signify anterior uveitis. If it's a unilateral process, I start to think about herpetic diseases; if it's bilateral, I consider the quality of the inflammation: Are there nodules in the iris, are there granulomatous keratic precipitates (KP) or mutton fat KP? Those are important findings in terms of generating a differential. Next, I rule out infectious processes, such as TB and Lyme.

TA: *What are some pearls you can share regarding teasing out information that can help identify an infectious ideology?*

RS: One of the key things I've gleaned is that you have to have a flexible view of what you see and what the patient tells you when you create a differential for uveitis, particularly when you take a sexual history if you suspect an infectious ideology. For instance, a male patient might present with his wife and say things that would indicate that his sexual history should not make syphilis a possibility, but if I ask the wife to leave the room, and delve more deeply, the patient may divulge important information. Sometimes you have to tell the patient that you're not there to judge them and that their honesty will impact your treatment plan and their treatment success.

TA: *What clinical signs do you see with herpetic lesions?*

RS: The classic signs signifying herpetic involvement are not subtle -- you will see trans-illumination defects and sectoral iris atrophy. When patients flare and relapse, they tend to have explosive granulomatous inflammation and hypopyon that is not otherwise explained, and it is classically unilateral. Other entities that you should consider as part of that spectrum include glaucoma and IOL related symptoms because it involves pigment dispersion. I find that an antigen capture PCR is the best way to diagnose herpetic involvement. The yields are variable, but the acute retinal necrosis (ARN) data suggests that PCR of anterior aqueous is reasonably good, at least 78% to 80% diagnostic for herpetic diseases.

TA: *On the other hand, given that Acyclovair or even Valtrex (Valaciclovir) are both medically safe, and acyclovir is cost effective, an empiric trial of those medicines may be warranted prior to AC-PCR. If one does make a diagnosis or even entertains a differential for a herpetic anterior uveitis, it is extremely important to perform a thorough posterior segment evaluation to make sure that you're not missing retinitis, which can be quickly devastating for the patient.*

RS: I agree. Also, there are newer presentations -- select cases of CMV type anterior uveitis manifestations -- that suggest that even if you don't get a response on Valtrex or acyclovir it does not necessarily mean it can't be in the herpetic family.

TA: *With regard to the more common non-infectious or auto immune uveitis causes, if a 12-year-old boy with 3+ anterior chamber cell, non-granulomatous precipitates and a hypopyon presented, how would you proceed?*

RS: I would rule out trauma and then immediately consider Behcet's disease, which can occur in all age groups. To establish that diagnosis you have to ask about non-ocular issues, as well. It can be difficult to broach

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With Rajiv Shah, MD

the topic of genital lesions, but it is necessary. Sometimes the signs are subtle, for instance, people can have lesions on their back that they think are acne, but it's actually Behcet's. One should consider herpetic involvement, as well, especially if the uveitis is unilateral. Other possibilities to consider are ankylosing spondylitis and Reiter's syndrome, as well as spondylopathies and psoriatic arthritis.

TA: *In the case of a child with intermediate uveitis, with anterior chamber cell but a prominent anterior vitreous, how do you proceed with your differential diagnosis?*

RS: Intermediate uveitis differential is very succinct: Associated disease states will include sarcoid, syphilis, tuberculosis, Behcet's, sometimes herpetic lesions, pars planitis and multiple sclerosis. MS is an example of one where it is crucial to ask about clinical symptoms, and an MRI is essential to evaluate for potential treatment. Lyme has also been associated with intermediate uveitis, and I find angiography to be very important in terms of how to create my differential diagnosis in these cases, particu-

larly because there can be a retinal vasculitis component in these cases.

TA: *With respect to the posterior segment, when you are dealing with pan-uveitis what are the entities that you consider?*

RS: The age of the patient tends to guide my thinking in these cases. The entities that I consider are pan-uveitis, granulomatous inflammation, PKH, syphilis and sarcoid, as well as birdshot, which is typically seen in older Caucasian patients but I've seen it in patients as young as 25. This reinforces the need to be flexible in the uveitis differential diagnosis process. It's also critical to rule out endophthalmitis, when considering infectious entities. It can be subtle; it doesn't always have to be post-surgical, it can be endogenous – and associated with issues such as IV drug use. Toxoplasmosis is also a common entity in pan-uveitis, as is acute retinal necrosis, which can sometimes be so bad that it precludes vision. In those situations, PCR becomes very helpful so, treating for the worst possible scenario is an inappropriate response here. ■