Transcript Details
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Diagnostic Vitrectomy for Infectious Uveitis

Announcer:
Welcome to *Eye on Ocular Health* on ReachMD. Today, we'll learn about diagnostic vitrectomy for infectious uveitis with Dr. Steven Yeh. He's the Stanley M. Truhlsen Junior Chair of Ophthalmology and the Director of Retina and Uveitis at the University of Nebraska College of Medicine. Let's hear from him now.

Dr. Yeh:
Diagnostic vitrectomy is a really powerful tool to understand the etiologies underlying infectious uveitis. And in addition, diagnostic vitrectomy can be a very powerful tool when you're considering diseases such as what we call vitreoretinal lymphoma. And so these are the typical scenarios that I consider diagnostic vitrectomy, if I'm suspecting an infectious uveitis syndrome that I can't diagnose with an anterior chamber tap and looking at aqueous humor and I actually need a vitreous specimen, or if there's a patient who I suspect might have lymphoma in their eye.

In terms of thinking about timing for diagnostic vitrectomy, I like to avoid doing vitrectomy when there is severe anterior chamber inflammation. So sometimes I will treat for a brief period of time with topical corticosteroid, and once that anterior chamber inflammation has improved, then that, I think, is appropriate timing to proceed with diagnostic vitrectomy. And I also proceed with diagnostic vitrectomy sooner if patients are coming from a long distance or there's social issues that they need to have a vitrectomy sooner. For instance, working in Nebraska, we have patients that come from five or six hours away sometimes. So sometimes they'll see me on a Thursday and we'll take them to the operating room on a Friday, from the standpoint of establishing a diagnosis given that they may need to travel a long distance to come and see me.

Considering the type of findings that we may see with diagnostic vitrectomy, whether it be intraocular lymphoma or an infectious uveitis, I like to move forward when there's still clinical suspicion and I haven't been able to establish the diagnosis with traditional laboratory serologies or an anterior chamber paracentesis. For instance, if there's a patient that I suspect has syphilitic uveitis and I'm able to establish the diagnosis with laboratory testing, with a blood draw, and they show Treponema pallidum IgG, then these situations I may not necessarily proceed with a diagnostic vitrectomy. Similarly, if a patient has findings consistent with acute retinal necrosis, which is a devastating disease that we see from herpes simplex virus or varicella zoster, I can often establish a diagnosis with an anterior chamber tap with PCR, or polymerase chain reaction, testing. These situations I won't proceed with vitrectomy. But if there still is disease uncertainty at that point, then I'll proceed with a vitrectomy procedure.

Thinking about how we maximize diagnostic yield, usually the first vitreous specimen has the highest diagnostic yield, because that's where the pathogen is highly concentrated. But I'll also harvest second and third specimens after I turn the infusion on and send these off for other pathogens as well. So if I think that a patient has a virus, I'll send PCR testing with the first specimen, but I'll also be sure to send off other specimens for Gram stain and culture as well as cytopathology for lymphoma.

The treatment results are really important for us as we think about our management decisions. For instance, if we are able to detect an infectious pathogen, or, for instance, if we identify a gram-positive organism or a bacteria, then we'll proceed with the appropriate antibiotic that will address the gram-positive organism.

In other situations, if we have an organism that we perhaps didn't expect—for instance, atypical mycobacteria is something that we'll infrequently see in cases of endophthalmitis—then this will also impact our choice of antibiotics. They'll need either amikacin, clarithromycin, or a macrolide antibiotic, often in conjunction with an infectious disease specialist.

Announcer:

That was Dr. Steven Yeh sharing best practices for diagnostic vitrectomy. To access this and other episodes in our series, visit *Eye on Ocular Health* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!