WENDY SMITH: I'd like to thank Ray and Sophie, and especially Sophie for inviting me to give this talk, even before I started working here, which was less than two months ago. So when we think about uveitis, it's important to know that a group uveitis specialists back in 1978 got together and formed the International Uveitis Study Group, and agreed that there would be some ways that we would describe uveitis and classify it, both anatomically, with of course anterior, intermediate, posterior, and pan, depending on where the information is present. And also, you can classify it clinically, as either infectious or noninfectious, or as a masquerade.

The standardization of uveitis nomenclature gives us a grading system for anterior inflammation the cells, based on the number of cells for high powered fields, and the flare, based on how well generally you can see the iris, and whether or not there's fibrin. And it's important to know that if you're going to call it trace, or 0.5 plus cells, there must be at least one cell per high powered field. So looking in four quadrants. So just seeing one cell total, flipping around in there doesn't make it trace cell.

There is no consensus about how to grade vitreous cell. And so some people use the National Eye Institute grading system. And that's where I trained, so that's sort of what I use. And it becomes quite difficult to count cells in the vitreous. And so many people do a little bit more of a gestalt, I think, when they grade vitreous cell.

There is agreement about how to grade vitreous haze. And this is a grading system using a 20 diopter lens looking into the back of the eye at the optic nerve. And it's based on in part how well you can see the optic nerve in the vessels. So this would be just about a 3 plus eye, based on this photograph.

So when we are developing a differential diagnosis, of course we want to know is acute or chronic? Where's the information? Some people feel granulomatous is important, but it can start out granulomatous this and become grant non-granulomatous, and vice versa. Of course, we want to know other things about the patient, and whether or not there are any signs on physical exam.

So here's a 52-year-old man. He was referred to us after he presented with acute blurred vision and light sensitivity in his left eye. He was found to have anterior uveitis non-granulomatous, worse in the eye that I'm not showing you. And he also had vitreous cell and haze. In this right eye, you can see that he has an area of retinitis and occlusion of an artery.

In his left eye, he had quite a lot of haze and inflammation, and the optic nerve was barely visible. And the peripheral retinal exam was very difficult, although there was a hint of maybe some retinitis. And the referring doctor was concerned about a viral etiology. But he also had this rash on his hands.

He had another rash. Had some rash on his feet. And we knew he was HIV positive, and he had not been taking heart therapy, and he was positive for RPR and syphilis IGG.

So this is syphilis related panuveitis. And we saw another nice case of syphilis related uveitis last night. He was treated with IV penicillin. And so this is a reminder to me to look at people's hands before I shake them. And maybe-- [GIGGLE] Yes, I don't actually shake hands very often with my patients.

And perhaps even looking at their feet, and in their mouths et cetera. And these things don't cost us anything except for time, which of course, can be very dear if you're a retina specialist trying to see 60 patients or more. So you might be sending them to me so I can look in their mouths.

So of course, we know that there's lots of labs. And there's sort of that quote unquote, "uveitis workup" that you'll see written in a note. And the question is always, what exactly did they do for the uveitis workup?

So when I see a patient, I do a bit of combing through to figure out which labs were done when. And you could you could order everything under the sun and get a lot of confusing results. So it's usually better to try to be somewhat targeted.

And keep in mind the patient's pocketbook, because it can cost a lot of money. But despite the million dollar workup-- at least million dollars-- at least 40% of cases could still be idiopathic. But we should never fall on that diagnosis easily. So we have to still do a lot of work before we are willing to accept that.

So here's another patient, a 61-year-old woman. She had decreased vision for two weeks. She had a lot of pain behind the eye, light sensitivity, redness. She is also a diabetic.

She was referred for retinal vasculitis. Her vision is this eye was 20, 80. She had an APD. She had anterior cell and vitreous cell and some haze. You can see there's obviously some retinal hemorrhage and vasculitis.

There's also a lot of retinal whitening out here in the nasal aspect. Her other eye just reflects diabetic retinopathy. And so we did do a PCR on her aqueous from an AC tap, which was positive for varicella zoster virus.

So PCR uveitis-- and we heard a lot about that last night. I think a lot of people are using it now, and that's really great for all of us. As we know, it just detects the presence of DNA or RNA, not necessarily active infection. Many of the studies have compared-- tried to figure out what we could consider the gold standard for diagnosing something infectious. And you could look at the Goldmann-Witmer looking at the antibodies in the eye versus--