ASK THE EXPERT

Uveitis in the Rheumatology Clinic

BY GEORGE N. PAPALIODIS, M.D.

Chronic uveitis is the third leading cause of preventable, irreversible blindness in developed countries. Although the incidence of the ocular inflammatory disease—estimated to be approximately 15 cases per 100,000 people—does not represent a public health menace per se, those afflicted with the condition experience not only substantial visual disability but also increased morbidity because of the frequent association with underlying systemic disorders, Dr. George Papaliodis said at the Congress of Clinical Rheumatology in Destin, Fla.

Uveitis occurs in many patients who have systemic rheumatic disease, and the ocular inflammation can precede the symptoms of the underlying disease. Familiarity with its manifestations can help facilitate prompt diagnosis and treatment, which in turn could be sight- and lifesaving. In patients with an established diagnosis of autoimmune disease, ocular inflammation can mark the severity of the systemic condition, he said.

In this month's column, Dr. Papaliodis discusses important considerations in the diagnosis and management of uveitis in the rheumatology practice.

RHEUMATOLOGY NEWS: An underlying systemic autoimmune disorder may be present in a significant proportion of patients with uveitis. Are some autoimmune diseases associated with a higher risk for the condition than others?

Dr. Papaliodis: Patients who develop bilateral uveitis or recurrent uveitis, or who have involvement of posterior ocular structures (retina, optic nerve, or vitreous) are more likely to have a diagnosis of an underlying systemic inflammatory disease. Even if we use these criteria, approximately a third of patients have idiopathic disease. Some autoimmune diseases commonly involve the eye. In the United States, the most common autoimmune entity to cause uveitis is associated with human leukocyte antigen (HLA)-B27. Other common autoimmune diseases that lead to ocular inflammation include rheumatoid arthritis, psoriasis, psoriatic arthritis, sarcoidosis, and the inflammatory bowel diseases.

RN: What are some additional risk factors for the development of uveitis in patients with rheumatologic disease?

Dr. Papaliodis: There are systemic diseases that lead to ocular inflammation, and there are localized inflammatory diseases that may be predominantly limited to the eye. The pattern of the disease (involvement of anterior vs. posterior segment) and type of inflammatory changes inside the eye (granulomatous vs. nongranulomatous) assist the physician in making a differential diagnosis.

RN: What is the role of the rheumatologist in diagnosing uveitis? Are there specific screening tests that should be performed?

Dr. Papaliodis: A thorough history and examination are critical. The rheumatologist should perform a detailed review of systems in patients with autoimmune diseases and refer those with visual symptoms—such as blurry vision, ocular pain, ocular erythema, or light sensitivity—to an ophthalmologist. Some symptoms may not be related to ocular inflammatory disease, but without the use of the ophthalmologist's advanced diagnostic equipment (specifically, a slit lamp), the rheumatologist will not be able to discern whether this is the case in a given patient.

RN: Should all patients with rheumatologic disease be screened for uveitis?

Dr. Papaliodis: No, universal screening is not practical. However, all patients with any of the aforementioned ocular symptoms should have a comprehensive ophthalmologic evaluation.

RN: What is the optimal treatment of chronic uveitis in rheumatologic patients, and at what point should therapy with biologics be considered?

Dr. Papaliodis: The most common therapy for the treatment of uveitis remains corticosteroids. For those with chronic disease, "steroid-sparing" immunomodulatory therapy is utilized. The specific disease entity that requires treatment and the patient's other comorbidities will dictate the choice of immunomodulatory therapy. When the decision is made to use steroid-sparing therapy, there are multiple treatment options available. The antimetabolites (such as methotrexate and azathioprine) are commonly employed, with an increasing use of biologic agents, including the anti-TNF-alpha agents infliximab and adalimumab.

RN: If you had to tell rheumatologists one thing about the management of uveitis in their patients, what would it be?

Dr. Papaliodis: I would suggest a collaboration with an ophthalmologist who is familiar with the diagnosis and treatment of these diseases. With respect to treatment, for example, rheumatologists are familiar with the agents used to manage uveitis, but they are not equipped to evaluate the ocular impact of therapy.

—Diana Mahoney

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IMAGING 360°

Psoriatic Arthritis

The use of imaging techniques other than x-ray is not nearly as widespread for psoriatic arthritis as it is for rheumatoid arthritis, and there are no guidelines on their use in this disease, according to Dr. Philip G. Conaghan, professor of musculoskeletal medicine at the University of Leeds in England. "For the vast majority of clinicians, x-rays are still the first line of investigation."

In part, the imaging approach is dictated by the subtype of psoriatic arthritis (PsA). For example, in the spondylitic subtype with axial involvement, the work-up would be similar to that for a patient with inflammatory back pain: x-rays of the sacroiliac joints, followed by MRI if necessary.

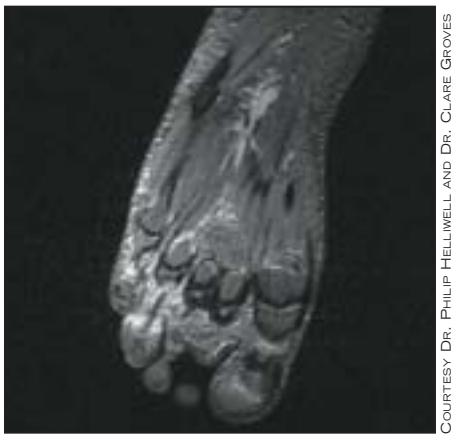
For peripheral PsA, x-rays of the hand joints would be performed first to detect erosions and evidence of new bone formation. "In the clear-cut patient, who's got a dactylitic digit, often imaging won't be required. You'll make a clinical diagnosis in those patients, especially if there's a history of psoriasis or nail pitting or other features that lead you to think this is a psoriatic arthritis," he said.

There are considerably fewer data on MRI and ultrasound in PsA than in rheumatoid arthritis (RA), but "before there's any bone damage, there's soft tissue inflammation," said Dr. Conaghan, cochair of the OMERACT (Outcome Measures in Rheumatology) MRI Inflammatory Arthritis Task Force. Imaging modalities like MRI and ultrasound that pick up soft tissue abnormalities earlier than x-ray may be more useful.

"What we see with PsA—being typically seronegative—is that a lot of that inflammation is more than just intra-articular synovitis, as we see in RA. You see a lot of extra-articular inflammation. So you find more tenosynovitis, more subcutaneous edema, and sometimes enthesitis," said Dr. Conaghan, who contributed to the OMERACT rheumatoid arthritis MRI reference image atlas. "Both ultrasound and MRI have a role to play in managing this disease, depending on their availability at your center."Both techniques are useful for identifying tenosynovitis and synovitis. Ultrasound allows physicians to pick up subcutaneous edema at lower levels than would be possible on a physical examination.

For MRI, sequences that pick up inflammation—gadolinium-enhanced or STIR sequences—are the most useful, said Dr. Conaghan. "For peripheral joint PsA, you could use patient-friendly extremity MRI. [Magnet strength] anywhere from 0.2 T up to 3 T could be used."

Ultrasound and MRI are both sensitive to inflammation, but "the link between inflammation and joint damage has not been as strongly made for PsA as for RA," Dr. Conaghan noted. Several groups are looking at clarifying this link. "Once that has been achieved, there will be more rationale for stamping out inflammation." Researchers will need to do large randomized trials to see if the suppression of inflammation can slow structural disease progression, as it does in RA.



COURTESY DR. PHILIP HELLIWELL AND DR. CLARE GROVES

MRI with gadolinium contrast reveals dactylitis in the toe of this patient.

There are no guidelines for using MRI or ultrasound to diagnose and follow patients with PsA at the moment; current clinical practice relies on clinical markers. However, OMERACT is developing a scoring system for peripheral PsA. The largest challenge that the group faces is that "we just don't have a lot of MR data sets [on PsA] available for us to look at," said Dr. Conaghan. "We welcome hearing from groups with such MRI sets."

Several groups are working on scoring systems for enthesitis using both ultrasound and MRI. Some of this work will be updated at the European League Against Rheumatism congress this summer. Work on evaluating MRI for the assessment of PsA is also ongoing, but these large imaging datasets are at least 1-2 years down the road. The OMERACT scoring system may be ready for validation in the next year.

Another problem with developing imaging guidelines for PsA is that disease involvement may be much more sporadic. "So you have fewer joints to evaluate per person, meaning that you might need larger datasets to show change."

Ultrasound and MRI are likely to be used in the future in the drug development process to show effectiveness of investigational drugs over time. ■

By Kerri Wachter