

Teaching Basic Rheumatology

To the Editor:

I have used the Socratic method in the clinic setting to introduce medical students to the basic concepts of rheumatology. Rather than learning passively, the students are impelled to think critically about arthritis and rheumatism. I ask 4 broad questions: (1) What is arthralgia? (2) What is arthritis? (3) Is arthritis a disease? and (4) How do you treat arthritis?

1. What is arthralgia? While most students know that arthralgia means joint pain, a significant number fumble around. Once this is established, a sub-question is asked: "How do you know if someone has arthralgia?" While the correct answer is, "The patient tells you", many respond with some physical finding or other. If I get anything but the right answer, I gently inquire, "How do you know if someone has a headache?" Ultimately, that leads to the correct answer. I then point out that there are a few caveats: (1) Does everyone tell the truth? (2) Is everyone psychiatrically stable? (3) Does everyone know exactly where their joints are located? They almost always get the answers to these questions right. Generally, I indicate, we assess the first 2 of these issues by intuition.

The third issue is meant to introduce the concept of soft tissue rheumatism, and to point out that lay people's language often differs from physicians' language. Not everyone who complains of joint problems has anything wrong with their joints.

Joint complaints are not necessarily related to the joint itself, but really mean "in the general region of the joint." If a patient says, "My elbow hurts," it may not be arthralgia at all — it may be epicondylitis. If she says, "my knee hurts," it may be anserine bursitis rather than arthralgia. People who say, "My hip hurts" often have pain a considerable distance from the articulation of the head of the femur and the acetabulum. Not infrequently the cause is trochanteric bursitis.

2. What is arthritis? Most students correctly answer: joint inflammation. When I then ask, "How do you know if someone has it?" all sorts of answers may result, many referring to blood tests or radiographs. If they do, I point out that physicians in Rome 2000 years ago were able to correctly conclude that their patients had joint inflammation when they found rubor, calor, tumor, and dolor. Translation of these terms into English leads to the recognition that the presence of joint inflammation is most commonly detected by physical examination. I note that we usually do not find all 4 signs — erythema, warmth, swelling, and tenderness/pain on passive motion — in

everyone with arthritis. I also mention that sometimes arthritis is diagnosed on the basis of imaging studies — particularly in joints such as the hip or the spine, which are hard to get at on physical examination.

3. Is arthritis a disease? Since we have just defined arthritis as joint inflammation, this question could be paraphrased as "Is joint inflammation a disease?" The answer is "Of course not," many different diseases can cause joint inflammation. (This issue is again confounded by the fact that "arthritis" in lay people's language is often taken to mean osteoarthritis.)

However, the answer often given is "yes." In that case I respond, "OK. Is fever a disease?" Usually I get the correct answer: "No." They understand that fever is not a disease, but may be a manifestation of many different diseases and soon recognize that the situation is comparable for "arthritis." Joint inflammation may be a manifestation of many different diseases, some of which have the word "arthritis" in their names — rheumatoid arthritis, osteoarthritis — and some do not — lupus, gout.

4. How do you treat arthritis? The purpose of this question is to hammer home the previous point — many different diseases lead to arthritis. All too often the response is "with antiinflammatory agents." In such a case I feign astonishment and ask, "You mean that when you next see a patient with septic arthritis you will treat him with ibuprofen?" The student then comes up with the correct answer: "It depends on the underlying disease."

By the end of this exercise we have clarified the meanings of the words arthralgia and arthritis. We have pointed out that symptoms due to soft tissue rheumatism are frequently attributed to joints. We have made the important point that lay people's language and physicians' language are not always identical, and that translation from one to the other often needs to be made. We have emphasized that the presence of arthritis demands a serious exercise in differential diagnosis, and that the outcome of that exercise dictates therapy.

Students seem to love this. They gladly come back to learn more, in greater depth. And they sit around with smug smiles on their faces watching the next group of students be quizzed.

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