Approach to Patients with Suspected Rheumatic Disease

Iaszmin Ventura, MD, Pankti Reid, MD, Reem Jan, MBBS, BSc*

KEYWORDS

• Arthralgia • Raynaud • Sicca • Alopecia • Malar rash

KEY POINTS

- Arthralgia is the most frequent presenting symptom of rheumatic disease, and the physician's first step is to make the distinction between inflammatory and noninflammatory joint pain. Thereafter, the pattern of joint involvement, time course, and physical findings will help formulate a narrow differential diagnosis.
- The skin is a frequent target for rheumatic conditions, and familiarity with stereotypical rashes is essential in leading to early diagnosis of systemic disease and appropriate tests and referrals.
- A thorough history and physical examination can lead to a more judicious choice of laboratory tests and in some cases avoid unnecessary serologic testing that can lead to anxiety, expense, and misdiagnoses.

INTRODUCTION

Rheumatic diseases are a fascinating group of conditions that demonstrate the complex role immunology plays in every organ system. The primary care provider can learn to recognize classic presenting symptoms and signs of these diseases, leading to earlier diagnosis and referral to a specialist. It is of paramount importance that a detailed history and physical examination precede any laboratory testing, as many serologic tests are of high sensitivity but low specificity. In this section, the authors describe the characteristic features of common presentations in these diseases, highlighting the aspects most consistent with an autoimmune or inflammatory process.

Arthralgia

Arthralgia is the most common reason for referral to a rheumatology practice. Evaluation of joint pain should always begin with the characterization of type of joint pain as

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Section of Rheumatology, University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637, USA
* Corresponding author.
E-mail address: rjan@medicine.bsd.uchicago.edu

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inflammatory versus noninflammatory and is followed by attention to the number and pattern of joints involved and the temporal onset and progression of pain.[1] Inflammatory joint pain characteristically peaks in the mornings with 30 minutes or more of morning stiffness (often a couple of hours or more), improves with activity, and does not completely remit with the rest. Types of inflammatory arthritis include autoimmune diseases like rheumatoid arthritis, crystalline arthritis, or infection. Noninflammatory joint pain is usually exacerbated by weight bearing and movement and is typically alleviated by rest. Diseases that lead to noninflammatory joint pain include osteoarthritis and fibromyalgia.

Duration of symptoms and location of the pain also facilitate in deciphering the cause. Symptoms less than 6 weeks are considered acute and may be consistent with viral or postinfectious syndromes, whereas pain lasting more than 6 weeks is categorized as more chronic and raises the index of suspicion for an autoimmune disease. The pattern of small joint disease, for example, in the hands, is very telling. Although rheumatoid arthritis (RA) affects the proximal interphalangeal (PIP) joints, metacarpophalangeal (MCP) joints, and wrist joints, it tends to spare the distal interphalangeal (DIP) joints. Osteoarthritis by contrast affects the DIP and PIP joints and the base of the thumb at the carpometacarpal joint and tends to spare the MCP joints and wrists. Of note, pain and tenderness between joints (between the DIP and PIP joints or between PIP and MCP joints) and into the myofascial planes arouse suspicion for fibromyalgia. Any other organ system involvement, such as the skin, oral mucosa, or simply the presence of profound constitutional symptoms, may indicate an autoimmune process, so a thorough review of systems is always helpful. See **Fig. 1** for clues to the diagnosis of arthropathy given these patterns of joint involvement.

When examining patients, the first step is assessing if the pain is truly in the articular area or if the pain is actually in the periarticular structures. The examiner should “look, feel and move” the joints to assess the true structures involved and any objective stigmata of inflammation or effusion. For example, thickening, sponginess, or soft tissue swelling around a joint implies synovitis, whereas bony or nodal enlargement of a joint is more characteristic of osteoarthritis.

In cases of acute monoarthritis, particularly initial presentations, it is absolutely essential to aspirate the joint and analyze the fluid for cell count, Gram stain, culture, and crystals. This analyzation will help rule in a crystal disease and rule out a septic joint.

Careful history and physical examination will help determine the appropriate laboratory, serologic, and radiographic tests in each setting and lower the likelihood of misleading test results.

INFLAMMATORY BACK PAIN

Back pain is one of the most common complaints in a primary care setting.[2] In fact, chronic lower back pain is a global issue in terms of morbidity, disability, and health care utilization.[3] For the primary care physician, it is important to be able to distinguish mechanical/degenerative back pain from pain that is inflammatory in nature or indicates serious underlying disease. Certain features (so-called red flags) of lower back pain should prompt urgent evaluation for disorders, such as malignancy, vertebral fracture, infection, or cauda equina syndrome. These features include age younger than 20 years or older than 50 years old; acute onset; association with trauma; weakness or sensory disturbance in the limbs; nocturnal pain; saddle anesthesia; urinary incontinence or retention; persistent fever or unexplained weight loss; history of cancer, intravenous drug abuse, or human immunodeficiency virus/AIDS; and osteoporosis.[4,5]