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Approach to the Patient with Rheumatic Disease

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INTRODUCTION

Rheumatic diseases encompass a range of musculoskeletal and systemic disorders that involve the joints and periarticular tissues. Tissue degeneration results from autoimmune responses, chronic inflammation, local trauma, and infection, producing gout, osteoarthritis, and connective tissue diseases such as rheumatoid arthritis and systemic lupus erythematosus (SLE).

Differentiating localized from systemic processes, executing logical diagnostic procedures, and embarking on appropriate therapeutic courses demand careful clinical evaluation. The medical history and physical examination are paramount in this process. Laboratory tests are more confirmatory than diagnostic. The connective tissue screen is performed at the bedside, not in the laboratory. Confirmation or exclusion of systemic connective tissue disease on the basis of laboratory results is unreliable and therefore unwise.

MUSCULOSKELETAL HISTORY AND EXAMINATION

A logical approach to musculoskeletal complaints is indispensable in arriving at the correct diagnosis. Features in the medical history that are useful for distinguishing different types of arthritis are listed in Tables 76-1 and 76-2. When a patient has a musculoskeletal complaint, a thorough history and physical examination usually provide the diagnosis, although further investigations may be necessary for confirmation.

The first step is to confirm that the complaint originates from the musculoskeletal system and is not referred pain caused by other organ system pathology (e.g., left shoulder pain due to cardiac disease). The next step is to define whether the problem is articular or extra-articular based on the history and clinical presentation.

TABLE 76-1 CLINICAL FEATURES THAT ARE HELPFUL IN THE EVALUATION OF ARTHRITIS

Age, sex, ethnicity, family history	Constitutional symptoms and signs (e.g., fever, fatigue, weight loss)
Pattern of joint involvement	Synovitis, bursitis, tendinitis
Monoarticular, oligoarticular, polyarticular	Involvement of other organ systems (e.g., rash, mucous membrane lesions, nail lesions)
Large versus small joints	Arthritis-associated diseases (e.g., psoriasis, inflammatory bowel disease)
Symmetry	Anemia, proteinuria, azotemia
Insidious versus rapid onset	Erosive joint disease
Inflammatory versus noninflammatory pain (e.g., morning stiffness, gelling, night pain)	

Demographic data provide useful information. The age of the patient can point to a specific rheumatic disorder. The spondyloarthropathies are more commonly diagnosed in young men, SLE in young women, gout in middle-aged men and postmenopausal women, and osteoarthritis in the older population. Asymmetrical pain and swelling in the knees have different connotations in a 70-year-old patient than they do in a 20-year-old patient.

Immune status may affect the diagnosis of rheumatic disease. Immunocompromised patients should be evaluated for infectious arthritis. Patients with human immunodeficiency virus (HIV) infection may have a severe form of Reiter's syndrome or a sudden flare of psoriasis or psoriatic arthritis.

The patient's history provides the basis for differentiating inflammatory from noninflammatory arthropathies. Inflammatory arthritis is characterized by pain at rest, morning stiffness (i.e., gelling), joint swelling, and joint tenderness. In osteoarthritis and nonarthritic musculoskeletal problems, pain usually does not occur at rest and is precipitated by activity. Some osteoarthritic joints are stiff initially but are improved with activity. The onset of disease is abrupt in crystal-induced arthritis, less so in septic arthritis, and slow and insidious in most other disorders.

Patterns of joint involvement are typical of certain disorders: monoarthritis (one joint), as in septic or crystal-induced arthritis; pauciarthritis or oligoarthritis (two to four joints), as in Reiter's syndrome or psoriatic arthritis; and polyarthritis (five or more joints), as in rheumatoid arthritis or SLE. Symmetry, migratory features, large versus small joint involvement, and axial versus appendicular locations are characteristic features of specific diseases and should be sought in the patient's history. Enthesopathy (i.e., disease at the attachment of tendons or ligaments to bone) can indicate a spondyloarthropathy.

Constitutional features such as fatigue, weight loss, and fever are seen in systemic autoimmune disease and infection but not in localized conditions. A thorough review of systems can provide clues to the primary diagnosis by defining associated systemic syndromes. Although there are many exceptions to these demographic and clinical generalizations, they provide helpful starting points when a patient is being evaluated for the first time.

On physical examination, active and passive range of motion in all joints should be carefully assessed, and tenderness, swelling, warmth, erythema, deformity, and joint effusions should be evaluated (Fig. 76-1). Patients are frequently unaware of detectable joint abnormalities, including deformity and effusion, which are signs of joint disease. Reported pain may be referred from another site, which can be determined by examination. Pain in the knee