

## Case Report

## Not So Ordinary Joint Pain - What Could It Be?

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## Introduction

Musculoskeletal concerns are a common concern in busy primary care practice. When the musculoskeletal concern is a manifestation of systemic inflammation, as in inflammatory spondyloarthritis, its early diagnosis is critical in preventing progression to irreversible joint damage, disability, morbidity, and mortality.

This case explores an atypical presentation of inflammatory spondyloarthritis in patients without a significant medical history.

## Case Presentation

A 25-year-old male with a past medical history significant for allergies and eczema presents to his PCP with a concern of right shoulder pain for the last three months. He denies any history of injury or trauma. The shoulder pain is worse with activity and improves with rest. The pain was unresponsive to over-the-counter acetaminophen or ibuprofen. He also reports a previous history of pain in his right hip, left knee, and left ankle. He expresses frustrations with multiple joint pains over the years that have limited his desired activity level. He reports an active lifestyle that includes regular exercise and weightlifting at least three times a week.

**Physical examination:****Vital Signs:** Afebrile, normotensive.**General:** Well-appearing male in no acute distress**Musculoskeletal:****Right shoulder:** Limited active and passive range of motion, provocative testing negative.**Right Hip:** Lumbar paraspinal tenderness, pain at bilateral posterior superior iliac spine, normal range of motion.**Left Knee:** Tender to palpation along the patellar tendon, provocative testing negative.**Left ankle:** Trace effusion, normal range of motion.

The patient was referred for laboratory evaluation, plain radiographs, and physical therapy. In addition, he was advised to schedule a 4-6-week follow-up appointment.

## Diagnostic testing

Labs were significant for elevated erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP). Complete blood count and



**Figure 1:** Radiographs of the hip and pelvis were significant for bilateral sacroiliac joint sclerosis.

metabolic panels were within normal ranges. Thyroid testing was negative. Antinuclear antibody and rheumatoid factor negative.

Joint aspiration of the ankle was negative for crystals, and cell counts were normal.

Radiographs of the affected joints were significant for bilateral sacroiliac joint sclerosis (Figure 1).

## Follow up evaluation

The patient returned with continued polyarthralgia approximately six weeks later, not improved with physical therapy. He was also concerned that he was not responding to lotions and over-the-counter hydrocortisone creams.

**Physical Examination:****Vital Signs:** Afebrile, normotensive.**General:** Well-appearing male in no acute distress.**Skin:** Left-proximal forearm – well-demarcated patch with scales, evidence of excoriation, hypopigmentation at the border (Figure 2).

The patient was prescribed more potent topical corticosteroids and referred to Rheumatology for suspected inflammatory arthritis.

## Diagnosis

Upon further examination of the skin lesion at subsequent evaluations, the morphology was not consistent with eczema but more likely plaque psoriasis. And, with this clinical diagnosis of psoriasis and chronic polyarthralgia, the patient likely had new psoriatic arthritis. The patient was appropriately referred to Rheumatology for further evaluation and eventually started on methotrexate. The patient's systemic and dermatologic manifestations of psoriatic arthritis improved within two months.

## Discussion

The patient's age and undiagnosed psoriasis made the diagnosis of psoriatic arthritis more challenging. Although this patient



**Figure 2:** Well-demarcated patch with scales, evidence of excoriation, and hypopigmentation at the border in the left-proximal forearm.



**Figure 3:** X-ray of hands showing destructive changes in joints involving metacarpophalangeal joints ("pencil-in-cup" or arthritis mutilans) had seen in psoriatic arthritis.

had systemic signs of inflammation, radiographic evidence of inflammatory arthritis was minimal. The patient is responding well to therapy and is happy to have a diagnosis for his joint pains.

Psoriatic arthritis (PA) is a chronic multisystem inflammatory disease of unknown etiology that usually appears in large, distal joints, skin, and nails [1]. The diagnosis of PA is clinical, but laboratory

testing and diagnostic imaging, such as radiographs and magnetic resonance imaging, are essential in evaluating other etiologies like osteoarthritis, rheumatoid arthritis, and injury sequelae [2-4] (Figure 3). Arthrocentesis may be helpful to rule out gout and septic arthritis [2,4].

Psoriatic arthritis affects both genders equally and typically present in individuals between 40-50 years old, but as in this case, it can appear earlier in life [3]. About 15% of individuals with psoriasis develop PA [1,3]. Psoriatic arthritis, however, can be the presenting symptom preceding any skin manifestations [1].

Although there is no cure for psoriatic arthritis, treatments are directed at symptom improvement and slowing disease progression. Medications, including nonsteroidal anti-inflammatory drugs (NSAIDs), disease-modifying antirheumatic drugs (DMARDs), biologic agents, and apremilast (Otezla<sup>®</sup>), have been used to treat PA [1,2]. Adjunct interventions such as physical and occupational therapy can improve overall function and quality of life. Joint replacement is reserved for severely damaged joints [5-7].

Since psoriatic arthritis does not have a cure, early recognition and prompt treatment can prevent irreversible joint damage, disability, morbidity, and mortality.

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