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Patient Information

- **Name:** Marcus Thorne
- **Date of Birth:** 02/25/1998
- **Age:** 27
- **Gender:** Male
- **Contact Information:** (555) 444-5555, marcus.thorne.dev@email.com
- **Address:** 77 Tech Way, Apt 3C, Silicon City, USA

Referring Physician

- Dr. David Chen, MD
- Primary Care Physician
- Silicon City Medical Associates

Medical Institution

- Silicon City Center for Spine and Rheumatic Diseases
- **Report Date:** 07/18/2025

Clinical History and Background

Marcus Thorne is a 27-year-old software developer who was referred by his PCP for evaluation of a five-year history of progressively worsening low back pain and stiffness. Mr. Thorne reports that his symptoms began during his last year of university. Being an avid gamer who spent long hours sitting, he initially attributed the pain to poor posture and inactivity. He has tried chiropractic adjustments, massage, and intermittent stretching with no lasting benefit. Over the past two years, the pain has become a constant feature of his life, characterized by specific inflammatory features that prompted Dr. Chen to suspect a spondyloarthropathy. His family history is negative for arthritis or autoimmune disease. He is a non-smoker.

Current Symptoms & Patient-Reported Outcomes (PROs)

- **Inflammatory Low Back Pain:**
    - **Patient's Description:** "It's a deep, relentless ache in my low back and buttocks that never truly goes away. But the stiffness is the real killer. When I get out of bed, I feel like I'm made of concrete. It takes over an hour of moving around before I feel even remotely human."
    - **Severity:** He rates the average pain as 7/10 and the morning stiffness as 9/10.
    - **Duration:** Chronic, for five years. He clearly states that resting makes it worse, and moving around or exercising makes it better. He is frequently awakened by pain after 3 AM.

    - **Clinical Note:** This is a textbook description of inflammatory back pain, the pathognomonic symptom of Ankylosing Spondylitis (AS). The insidious onset in late adolescence/early adulthood is also classic.
- **Alternating Buttock Pain:**
    - **Patient's Description:** "The pain moves around. For a few weeks, it'll be a deep ache in my left buttock, then it will fade and start up on the right side. It's very strange."
    - **Severity:** Moderate, rated 6/10.
    - **Duration:** A prominent feature for the past three years.
    - **Clinical Note:** This pattern strongly suggests alternating sacroiliitis.
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- **Chest Wall Pain:**
    - **Patient's Description:** "Sometimes I get this sharp pain in my ribs or my breastbone. It's not a heart attack—I had that checked out. It just hurts to take a really deep breath."
    - **Severity:** Intermittent but sharp, rated 7/10 when it occurs.
    - **Duration:** Episodic over the last year.
    - **Clinical Note:** This is likely due to enthesitis of the costosternal or costovertebral joints, another key feature of AS.
- **Systemic Fatigue:**
    - **Patient's Description:** "I feel perpetually drained. My sleep is terrible because of the pain, and even when I do sleep, I wake up feeling unrefreshed. It's hard to stay focused on complex coding problems."
    - **Severity:** Severe, impacting his cognitive performance and overall well-being.
    - **Duration:** Worsening over the past two years.
    - **Clinical Note:** The systemic inflammatory burden is a major contributor to fatigue in AS.

Clinical Findings

- **Vital Signs:**
    - **Blood Pressure:** 125/80 mmHg
    - **Heart Rate:** 75 bpm
    - **Respiratory Rate:** 16 breaths/min
    - **Temperature:** 98.7°F (37.1°C)
- **Physical Examination:**
    - **Musculoskeletal:** There is marked loss of lumbar spine mobility in all planes. Modified Schober's test demonstrates only 2.5 cm of forward flexion (normal >5 cm). Lateral flexion is significantly restricted and painful. Palpation over bilateral sacroiliac joints elicits deep tenderness. Chest expansion is measured at 3 cm (normal >5cm), indicating early restriction of the costovertebral joints.
- **Laboratory Results:**
    - **HLA-B27:** Positive.
    - **Erythrocyte Sedimentation Rate (ESR):** 48 mm/hr (Elevated).
    - **C-reactive Protein (CRP):** 4.1 mg/dL (Elevated).

    - **Rheumatoid Factor (RF) and anti-CCP:** Negative.
- **Imaging:**
    - **X-ray of Pelvis:** Shows bilateral sacroiliitis with significant erosions, sclerosis, and partial fusion of the sacroiliac joints (Grade 3 sacroiliitis).
    - **X-ray of Lumbar Spine:** Reveals squaring of the vertebral bodies and early, thin syndesmophyte formation, indicating the beginning of spinal fusion.

Diagnosis

Mr. Thorne meets the modified New York criteria for a definitive diagnosis of **Ankylosing Spondylitis**. He has clinical criteria (limitation of lumbar spine motion, limitation of chest expansion) and definitive radiographic criteria (bilateral grade 3 sacroiliitis). The diagnosis is further supported by his classic history of inflammatory back pain, positive HLA-B27, and elevated inflammatory markers.

Treatment Strategy

The goals of management are to control pain and inflammation, preserve as much spinal mobility as possible, prevent further structural damage and fusion, and maintain his function and quality of life.

1. **Foundation of Treatment - Physical Therapy:**
    - This is the single most important intervention. An urgent referral will be made to a physical therapist with expertise in AS. He will be enrolled in a daily program focusing on spinal extension, rotation, and flexibility exercises, as well as postural training. We emphasized that this is a non-negotiable, lifelong commitment.
2. **Pharmacological Treatment:**
    - **NSAIDs:** He has failed to achieve adequate control with intermittent, over-the-counter NSAIDs.
    - **Biologic Therapy:** Given his high disease activity, evidence of radiographic progression, and inadequate response to non-pharmacologic measures, he is an excellent candidate for biologic therapy. We will initiate treatment with a TNF-alpha inhibitor, such as adalimumab or etanercept. These medications are highly effective at controlling the inflammation, pain, and stiffness of AS and can slow radiographic progression. The risks and benefits have been discussed, and pre-screening will be performed.

Summary and Plan

Mr. Marcus Thorne is a 27-year-old male with a significant delay in the diagnosis of Ankylosing Spondylitis. He now has highly active disease with clear radiographic evidence of damage to his sacroiliac joints and early fusion of his spine. The cornerstone of his management will be a dedicated physical therapy regimen, which we will combine with aggressive medical therapy in

the form of a TNF-alpha inhibitor. The goal is to halt the inflammatory process to prevent him from developing a rigid, fused spine and to allow him to live a full and active life.

Follow-up

He will have a follow-up appointment in one week for injection training and to review baseline safety labs. We will see him back in the clinic in 3 months to formally assess his response to biologic therapy using standardized disease activity scores (e.g., BASDAI). He will need regular follow-up every 3-6 months to monitor his condition and treatment.