

Advanced Management of Complex Foot Pathology in a Senior Athlete— Recreational

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ABSTRACT

History: An active 78-year-old male, with a background as a recreational athlete, presented with acute onset of left foot pain, following an event of mechanical stress characterized by a popping sensation. His extensive medical history included interventions for systemic and musculoskeletal disorders, notably a carotid artery dissection and hip arthroplasty. Lifestyle factors included past smoking and minimal alcohol use. He reported a recent corticosteroid intervention of his left mid-foot for chronic discomfort.

Physical Examination: Orthopedic assessment revealed moderate left anteromedial ankle swelling and ecchymosis with palpable tenderness. A comprehensive evaluation of his lower extremity mechanics showed preserved strength across all tested muscle groups and a full range of motion, negating any neuromuscular impairment. Normal left leg sensation and a warm and well-perfused extremity were presented, eliminating potential neurological or vascular complications. No foot drop was noted. Biomechanical analysis indicated abnormal gait patterns underpinned by equinus and pes planus deformities.

Differential Diagnosis:

1. Acute Anterior Tibialis Tendinopathy
2. Progressive Midfoot Osteoarthritis
3. Functional Limb Length Discrepancy
4. Radiculopathy of L4 Nerve Root

Tests and Results: Diagnostic imaging, encompassing weight-bearing radiographs and CT scans, delineated severe degenerative changes in the tarsometatarsal joints, with notable joint space narrowing and osteophytic proliferation. Additional findings included significant plantar calcaneal spur formation.

Final/Working Diagnosis: Acute tear of the left anterior tibialis tendon and advanced tarsometatarsal osteoarthritis, complicated by a pre-existing limb length discrepancy.

Treatment and Outcomes: The treatment strategy emphasized biomechanical correction and pain management. This included the implementation of a custom-fit ankle brace to stabilize the joint and mitigate load-bearing stress, supplemented by a structured RICE protocol. Further orthopedic follow-up was planned to monitor the conservative management's efficacy and evaluate the need for potential surgical intervention.