

Conference

Submitted in 2025 for the 2026 American Medical Society for Sports Medicine Annual Meeting

Title

When Persistent Knee and Hip Pain Mask an Underlying Disorder

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Case History

A 35-year-old female with obesity was referred to our sports medicine clinic with a 10-month history of progressive right knee and hip pain. Her symptoms began after a valgus injury occurred while ascending stairs, initially thought to be a medial collateral ligament (MCL) sprain or meniscal injury. Despite knee MRIs, corticosteroid injections, and physical therapy, the patient's pain and swelling persisted. She later developed anterior groin and lateral hip pain. MRI of the hip revealed a small posterior labral tear with fraying and greater trochanter bursitis. An ultrasound-guided intra-articular corticosteroid and Marcaine injection provided no relief. Her pain progressed posteriorly with new swelling, coolness, and radiation to the knee, prompting evaluation for vascular pathology.

Physical Examination

Examination of the right knee revealed mild swelling, neutral alignment, intact skin, and no ecchymosis. Range of motion was 0–130° of flexion. There was tenderness to palpation along the medial joint line and MCL, with pain on patellar grind and medial pain on McMurray testing without clicking. The right hip showed no swelling or ecchymosis and full range of motion in flexion, internal rotation, and external rotation. Pain was elicited with resisted hip flexion and passive rotation, with tenderness to palpation over the greater trochanter. Strength and sensation were intact bilaterally.

Differential Diagnosis 1

Iliac vein compression syndrome

Differential Diagnosis 2

Patellofemoral pain syndrome

Differential Diagnosis 3

Hip labral tear

Differential Diagnosis 4

Medial collateral ligament sprain

Differential Diagnosis 5

Greater trochanteric bursitis

Tests & Results

CT angiogram of the pelvis revealed compression of the left common iliac vein by the overlying right common iliac artery. The patient was referred to vascular surgery and underwent stenting of the distal inferior vena cava and right common and external iliac veins. One month later, she had left common and external iliac vein stenting.

Final/Working Diagnosis

Iliac vein compression syndrome (May-Thurner syndrome).

Discussion

May-Thurner syndrome occurs when the iliac artery compresses the adjacent iliac vein against the lumbar spine, causing venous insufficiency or obstruction. Symptoms include leg pain, swelling, and skin changes, though some patients remain asymptomatic due to collateral flow. This patient presented with hip and leg pain initially attributed to a labral tear. Despite multiple orthopedic evaluations, corticosteroid injections, and a Medrol Dosepak, symptoms persisted. Vascular studies revealed compression of the left common iliac vein, the classic finding in May-Thurner syndrome. Clinicians should suspect vascular causes when symptoms and imaging fail to align with musculoskeletal disease.

Outcome

Following stenting, the patient reported significant improvement in knee and groin pain. Residual lateral hip pain around the trochanteric bursa responded well to a corticosteroid injection upon follow-up.

Return to Activity and Follow-Up

During her two-month follow-up, the patient reported that she progressed to ambulating without crutches in the home and community. At her six-month vascular surgery follow-up, she reported ambulating over 2 miles daily without pain. She had no recurrence of knee, hip, or groin pain.