

Bilateral Lower Extremity Cramping in a Lacrosse Player

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HISTORY: A 19-year old female collegiate lacrosse player presented to the outpatient office for evaluation of bilateral lower extremity cramping during running exercises. She described it as a tightening of her calf and thigh muscles to the point of being “rock hard.” These muscles were very sore the day following activity. This had occurred on countless occasions in the past few competitive seasons. She had already been worked up with blood work, all of which was negative for abnormalities. She was on an extensive fluid and electrolyte regimen but did not see any improvement in frequency or intensity of these episodes. While at college she had also participated in three months of dedicated physical therapy including Graston and soft tissue techniques again with no progress.

PHYSICAL EXAMINATION: Examination in the office revealed a well-developed, age appropriate female. She had full range of motion of her neck, back, hip, and ankle. She had full knee flexion and extension but lacked 30 degrees of extension when the hip was flexed to 90 degrees. She had 5/5 bilateral strength of hip flexion, knee extension, knee flexion, ankle dorsi- and plantar flexion. She had 2+ distal pulses bilaterally. Sensation to light touch was intact and equal in her bilateral lower extremities. Bilateral hip exam produced no pain with log roll. FABER and FADIR testing were negative. She had no tenderness at the hip joint, greater trochanter, pubic symphysis, or ASIS. Bilateral knee exam revealed no ligamentous laxity, tenderness to palpation or bony deformities. She had negative Lachman, McMurray, anterior and posterior drawer testing as well as negative valgus and varus stress testing. Her bilateral calves revealed no edema, erythema, ecchymosis or warmth. She was non-tender to palpation over this musculature.

DIFFERENTIAL DIAGNOSIS: 1. Exertional Compartment Syndrome 2. Electrolyte abnormality 3. Metabolic disorder such as glycogen storage disease 4. Popliteal artery entrapment 5. Lymphatic obstruction

TESTS AND RESULTS: Exertional Compartment testing: Negative bilaterally for increase in compartment pressures after running on a track. Dynamic Arterial Duplex Scan with maneuvers: Positive for Popliteal Artery Entrapment bilaterally.

FINAL/WORKING DIAGNOSIS: Bilateral Popliteal Artery Entrapment

TREATMENT AND OUTCOMES: Referred for further evaluation with a vascular surgeon.