The patient was an 8-year-old girl who was referred to a physical therapist by her pediatrician for a chief complaint of worsening proximal right calf pain and progressive right-sided toe walking for the past 6 weeks. Although the patient's symptoms worsened with participation in gymnastics, the onset of symptoms was gradual in nature and not related to a specific mechanical injury. Prior to physical therapist referral, lower-leg radiographs and a serum D-dimer laboratory test to rule out a deep vein thrombosis had been completed and interpreted as normal.

At the time of the initial physical therapist evaluation, visual observation revealed an antalgic gait for the right lower extremity, characterized by a shortened stance phase and toe walking. Active and passive range of motion for right ankle dorsiflexion was decreased, and right ankle plantar flexion strength was decreased and painful with testing. Palpation revealed tenderness and soft tissue fullness within the region of the right popliteal fossa and proximal calf without cutaneous abnormality.

Due to concern that the patient’s symptoms were nonmusculoskeletal in nature, the physical therapist discussed the history and physical examination findings with the patient’s pediatrician and an orthopaedic surgeon. Subsequent magnetic resonance imaging (FIGURE) and percutaneous biopsy led to a diagnosis of a low-flow venolymphatic malformation of the proximal gastrocnemius muscle. Following treatment with percutaneous sclerotherapy, Vulpius gastrocnemius muscle lengthening, and lower extremity stretching and strengthening exercises, the patient had decreased pain, an improved gait, and enhanced participation in gymnastics.

Reference

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