

LEG PAIN IN A HIGH SCHOOL CROSS COUNTRY RUNNER

Bill Moreau, DC, DACBSP, CSCS

Moreau Chiropractic Clinic, Estherville Iowa

HISTORY: A 15 year old (Y/O) female high school cross country runner presents with left leg pain. The pain is variable and greater with strength training activities that involve the left leg. Upon presentation she rates her at 4-4.5 /10. The patient identifies some mild swelling at the area of the complaint. She has a positive past history of a non-specific running injury at the end of the cross country season four months prior. The remainder of the review of systems was negative. She describes no constitutional symptoms. She has a positive family history of her sister having the same type of pain in her leg which was successfully treated with orthotics.

PHYSICAL EXAMINATION: Patient is a cheerful 15 Y/O Caucasian who appears in no apparent distress. Gait evaluation demonstrates she can painlessly walk, jump and run without limp or expression of pain. Hyperpronation of her feet is observed bilaterally. Palpation reveals +1/5 pain localized 2 inches inferior to the medial joint line of the knee. There is noted trace swelling, no ecchymosis, and no deformity at the area of complaint. Range of motion reveals a 20 degree loss of left active knee flexion with a soft end-point, while the remaining knee, hip and ankle passive and active ranges of motion were full and equal. No joint fixations were detected with motion palpation at the knee. Examination was unremarkable for loss of lower extremity motor function, peripheral pulse changes or loss of superficial sensation. The area of complaint was warm to the touch.

DIFFERENTIAL DIAGNOSIS: Periostitis, Pes anserine bursitis, stress fracture, myofascial pain, tumor, infection.

TEST AND RESULTS: Radiographs demonstrated a mixed lesion of the medial proximal tibia.

FINAL DIAGNOSIS: Osteoblastic Osteosarcoma

TREATMENT: The athlete was provided conservative care on eight occasions over an eight week period. The care consisting of manual soft tissue release of the musculature at the leg and thigh, low-dye taping, orthotics, flexibility exercises activity modification, ultrasound and cryotherapy. The patient initially responded positively to the conservative care measures offered. There was a two-week break in the patients care because of her improvement the parent and patient wanted to observe her recovery. She subsequently returned for care and on the eight office visit the patient casually mentioned that she uses ice at night for pain relief. Radiographs were immediately obtained. The radiograph images demonstrated a metaphyseal mixed lesion of the left proximal tibia. Further advanced imaging was promptly obtained. These advanced imaging studies consisted of CT, MRI, bone scan and chest films. Advanced imaging confirmed the diagnosis of osteoblastic osteosarcoma of the left tibia. A course of chemotherapy proved unsuccessful and the left leg was subsequently amputated at the mid-shaft of the femur. The patient has survived 12 months since the diagnosis and plans on returning to cross country and running with a running prosthesis in five months.