

LOWER LEG PAIN IN AN ELITE LEVEL TRIATHLETE: A CASE STUDY.

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HISTORY:

A 23-year old female elite triathlete presents with insidious right medial lower leg pain. Pain was increased with running and climbing out of the saddle. Pain is sharp and tender over a focal area on proximal medial tibia. Pain is rated 8/10 during activity and 2/10 at rest.

The athlete's medical history includes 8 stress fractures, osteopenia, anemia, amenorrhea, and anorexia.

PHYSICAL EXAM:

Localized edema, +2 TTP along the proximal medial aspect of the right tibia, +2 hypertonicity of the soleus, flexor digitorum and posterior tibialis. AROM was decreased in inversion and dorsiflexion with 4/5 strength with resisted inversion. Video analysis of running gait revealed varus hindfoot, prolonged forefoot pronation, & genu valgum. Orthopedic & neurological evaluation was unremarkable.

DIFFERENTIAL DIAGNOSIS:

- Posterior Tibial Stress Syndrome
- Exertional Compartment Syndrome
- Periostitis of the Tibia
- Posterior Tibialis/Flexor Digitorum/Soleus strain/tendonitis
- Tibial Stress Fracture

TESTS AND RESULTS:

X-Rays were unremarkable. Diagnostic Ultrasound revealed mild inflammation along the Posterior Tibialis and Flexor Digitorum. MRI revealed findings consistent with a stress fracture at the proximal tibia. DEXA T-Scores were 0.0 for left hip and -1.3 for lumbar spine. Lab studies were "In Range".

FINAL/WORKING DIAGNOSIS: Proximal Tibial Stress Fracture.

TREATMENT PLAN:

- Manual therapies, physiotherapeutic modalities, rehabilitation, & chiropractic manipulation.
- Running orthotics, shoe and bike pedal modifications.
- Alteration of training program, utilization of an anti-gravity treadmill.
- Nutritional evaluation
- Sports Psychology Counseling.