Connecticut Orthopaedics

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Sports Medicine/Foot & Ankle

Posterior Ankle Impingement/Os Trigonum
Non-Operative Protocol

Posterior Ankle Impingement. Posterior ankle impingement is a condition where an individual experiences pain at the back of the ankle, due to compression of the bone or soft tissue structures during activities that involve maximal ankle plantarflexion motion. It is most commonly seen in ballet dancers, soccer players, basketball players, volleyball players, and runners. Impingement of posterior aspect of talus between tibia and calcaneus may cause block to plantarflexion.

Os Trigonum. Os ("bone") trigonum is an anatomic variant in which extra bone is located behind the ankle bone. This bone can become inflamed and rub against some tendons and even cause tendon tears. Accessory bone found just posterior to talus which is usually asymptomatic. Present in 2-14% of normal feet. Patient with painful os trigonum exhibit symptoms of posterior ankle impingement including: pain is worse with passive PF and tenderness to palpation at posterolateral aspect of ankle posterior to peroneal tendons

Phase I: Acute Stage
Weeks 0-2
Modalities such as phonophoresis, cold whirlpool, ice, e-stim

- Soft tissue work/myofascial release to gastric-soleus complex and plantar fascia
- Mobilization to talus, calcaneus, midtarsal joint, and tibiofibular joints (calcaneal and talus distractions)
- Flexibility exercises to gastric-soleus complex in subtalar joint neutral
- Strengthening: inversion/eversion, PF/DF, hip external rotators
- Closed kinetic chain (CKC) exercises (leg press, wall slides, multi-hip, intrinsics)
- Proprioceptive exercises (BAPs, single leg stance [eyes open/closed], proper foot placements, mini-tramp)

Phase II: Subacute Stage
Weeks 2-4

- Continuation of modalities, soft-tissue work, and mobilizations
- Continuation of flexibility, strengthening, stabilization, proprioception, and aerobic exercises

Phase III: Return to Function
Weeks 4-6

- Jumping progression
- Progressive return to activities

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