Intrasheath peroneal subluxation and peroneus brevis tear in female gymnast

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Abstract

In January, the athlete was referred to her physical therapist for peroneal tendinitis. She had five physical therapy sessions over a two week period which included:

- Manual stretch and mobilization to talocalcaneal and subtalar joint
- Transverse friction massage to peroneal tendons
- Manual eccentric strengthening of peroneals (3x15)
- AROM board with 2 boot (2x10 all directions)
- Gastrocnemious and peroneal stretching instructed to continue to do throughout the day
- Mulligan taping for distal fibula
- Kinesiology taping (1.5 cc, 4% lidocaine) to left peroneal tendon proximal to lateral malleolus
- Instruction on kinesiotaping
- Cold pack 15 min

In March 2013, the snapping and pain had increased to the point that she elected to undergo surgery after competition season in May. The surgeon’s preoperative diagnosis was that she had left peroneal retinaculum instability. The postoperative diagnosis revealed left peroneus brevis tendon tear and left peroneus longus tenosynovitis. The surgeon performed a left peroneus tendon debridement and peroneus longus tenosynovectomy. After the surgery, she was given a Cam Walker Boot non-weight bearing for four weeks, progressing to partial weight bearing as tolerated. At six weeks post surgery she was able to start physical therapy to strengthen the lower extremity and increase range of motion. Uniqueness: In this clinical case the athlete had snapping peroneals, which are usually caused by a tear in the peroneal retinaculum. Her retinaculum was in tact, however surgery showed that she had a peroneal tendon tear and peroneus longus tenosynovitis. Conclusions: By twelve weeks she was able to fully progress back to gymnastics and by six months post surgery she was able to complete full practices.

A 16 year old female, gymnast presented with persistent left lateral ankle pain after feeling a “pop” in her lateral ankle in November 2012. At that time she was diagnosed with peroneal tendinitis. Since feeling a “pop,” she had been experiencing snapping, especially prominent when doing leaps and being on one leg. With this procedure, she was cleared for all activities including cutting. Had the surgeon, in this case, ordered a dynamic ultrasound of her peroneals, she could have had a better clinical outcome.

Differential Diagnosis

- Lateral ankle sprain was ruled out with a physical examination
- Fracture was ruled out with an x-ray
- MRI showed an intact peroneal retinaculum and no peroneus brevis tear, however her physician and surgeon still suspected peroneal retinaculum instability going into surgery.

References