BILATERAL OS TRIGNUM IN DIVISION I FEMALE GYMNAST

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Background
22-year-old female competitive gymnast began to experience a slow onset of left ankle discomfort. During evaluation the athlete stated there was no pertinent history besides a “partially torn Achilles tendon.” Further evaluation indicated: point tenderness, inflammation, strength within normal limits and a lack of dorsiflexion.

Differential Diagnosis
Achilles tendonitis, Talus fracture, Posterior calcaneal bone spur.

Treatment
Conservative treatment was performed to reduce pain and inflammation. Without any incidence of trauma, sharp pains and clicking was reported. A diagnostic ultrasound was prescribed which revealed an Os Trigonum and bone spur on the posterior aspect of the right calcaneus. The athlete underwent surgery for partial excision of the right calcaneus as well as right Achilles tendon debridement and tenolysis. Nineteen months later similar pain was present in the contralateral ankle – evaluation found inflammation around the Achilles tendon, strength within normal limits, normal myotome/dermatome function and the athlete reported pain with punching and running. Post season the posterior ankle joint pain was diagnosed as an Os Trigonum by a different physician who thought the athlete was originally misdiagnosed (tendonitis). The same surgery was performed as on the contralateral ankle to remove the ossification. With a slow progression the athlete suffered Achilles tendonitis at the surgical site, severely restricting her gymnastics.

Uniqueness
Os Trigonum (Posterior Ankle Impingement) a small bone on the posterolateral aspect of the talus formed from a separate ossification which fails to fuse with the talus. The incidence of Os Trigonum has been estimated as in 8-13% of adults in various studies, however; generally only causes discomfort in a small percentage of competitive athletes whose sport demands excessive plantar flexion.

Conclusion
Clinicians should be aware of Os Trigonum syndrome and should suspect it as a possible source of persistent posterolateral ankle pain. Suspicion should be high when the patient’s symptoms are reproduced with passive plantarflexion or palpation of the posterior aspect of the subtalar joint between the Achilles tendon and the lateral malleolus. Eleven months out of surgery and entering post season competition, the athlete is competing with no restrictions and contributed to the teams Pac 12 Championship.