Accessory FDL causing Tarsal Tunnel Symptoms in a 15 Year Old Girl: A Case Study

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Abstract:
The presence of an accessory flexor digitorum longus (FDAL) has been sparsely reported in the foot and ankle literature. This makes for a particularly challenging diagnosis for the practitioner, especially without more advanced imaging modalities present. The current case presents a 15 year old track and field runner who presented with tarsal tunnel symptoms only when running at which point she had to stop due to increased pain that would subside with a short period of rest. Ultimately she was found to have an FDAL which was resected operatively at which point she was able to return to full physical activity at the competitive level.

Introduction:
Tarsal tunnel syndrome can have many etiologies and is a relatively common pathology that presents to the Foot and Ankle Surgeon. The basic premise being that the tibial nerve has little room for compensation being enclosed in the flexor retinaculum and is therefore vulnerable to changes in the volume of the “tarsal tunnel”. Possible etiologies include tumor, tenosynovitis, varicosities, bone spur, valgus foot type as well as the presence of accessory muscles (1).

The presence of an accessory flexor digitorum longus (FDAL) has an incidence as high as twelve percent in the population (2). The sparsity in reporting this anatomic variant in the Foot and Ankle literature may contribute to a difficulty in pinpointing it as a pathological source for the symptoms (4). While there are many etiologies, once diagnosed appropriately, the treatment options are few in number and often gravitate towards surgery. While there are many possible etiologies for tarsal tunnel syndrome, Cimino and colleagues reported that 34% were idiopathic (5). This suggests that the involvement of more advanced imaging modalities or techniques such as MRI may help the practitioner reach a definitive diagnosis more quickly (6-9).

Discussion:
Tarsal tunnel syndrome is a common pathology known to the foot and ankle surgeon that often requires surgical intervention for resolution of symptoms (4). While there are many etiologies, once diagnosed appropriately, the treatment options are few in number and often gravitate towards surgery. While there are many possible etiologies for tarsal tunnel syndrome, Cimino and colleagues reported that 34% were idiopathic (5). This suggests that the involvement of more advanced imaging modalities or techniques such as MRI may help the practitioner reach a definitive diagnosis more quickly (6-9).

Conclusion:
The current case represents a 15 year old runner with TTS secondary to an accessory FDL muscle. The Patient had complete resolution of symptoms at almost one year follow up with no complications following surgical resection.

References: