The Silverskold Test, Are We All Doing it the Same?
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Introduction/Purpose: Gastrocnemius equinus has been associated with a wide range of foot and ankle pathologies in the literature, however, many still question it's involvement or existence. A recent response in Foot & Ankle International pointed out an incorrect demonstration of the Silfverskold test in a prior study. With a growing body of literature supporting gastrocnemius equinus as a contributing factor in foot and ankle pain, why do many feel that it still does not exist? It was our hypothesis that unless the examination is performed correctly, the diagnosis can be missed and could be the potential cause for disbelief in its existence or effect on foot and ankle pain. We sought to demonstrate the difference in examination findings when performing the test correctly and incorrectly.

Methods: Thirty consecutive patients with conditions associated with gastrocnemius equinus in the literature were included in the study. Each patient was consented and had a Silverskold test performed correctly by inverting and locking the subtalar joint as well as stabilizing the talonavicular joint in order to isolate the ankle joint. We then performed the exam incorrectly without stabilizing the same two joints, allowing motion through the ipsilateral hindfoot and midfoot joints. A long arm goniometer was used to measure the angles with each arm along the length of the fibula and fifth metatarsal. The senior author performed all of the examinations to maintain consistency. The angles were recorded for later review.

Results: We found that when the subtalar and talonavicular joints were stabilized, there was almost fifteen degrees less dorsiflexion than when the same joints were not stabilized. The average dorsiflexion when performed in the correct manner was seventy-eight degrees, while the average dorsiflexion with the exam performed incorrectly was ninety-three degrees.

Conclusion: We demonstrated that if the examination is not performed correctly, the equinus contracture could go undiagnosed as motion through the hindfoot and midfoot joints can alter the findings. It is important to understand and perform the technique correctly to evaluate for the contracture as it has been shown to be a contributing factor in many foot and ankle problems. If we standardize the examination, there may be less disagreement about its existence or affect on foot and ankle pain.

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