Letter to the Editor

Response to Letter to the Editor on “Gastrocnemius recession for foot and ankle conditions in adults: Evidence-based recommendations”

Dear Editor,

We would like to thank Dr. Baumbach and Dr. Polzer for their interest in our review of gastrocnemius recession and their follow-up comments. In their letter, they express that a universal definition of equinus contracture, including a standardized method of measurement, are necessary to provide the basis for accurate scientific assessment regarding the indications for gastrocnemius recession. We agree that this remains a very important and challenging topic to be addressed as this procedure gains popularity in the treatment of varying foot pathology.

Perhaps the greatest challenge is reaching consensus on the degree of dorsiflexion restriction we should consider pathological. Numerous definitions of pathological contracture and the way it is measured have been proposed, although currently a definition of less than five to ten degrees of dorsiflexion with the knee in extension and the foot neutrally positioned seems most popular [2]. Due to the complex biomechanics of the lower limb and a host of other factors, however, dorsiflexion limitation of less than ten or even five degrees will not inevitably lead to foot/ankle pathology in all patients. Therefore, it may be useful to consider additional potential causalities, such as an abnormal gait, increased plantar pressures, impingement syndromes, and the presence of damage to the bone, joint, or soft tissue secondary to the increased forces generated across the forefoot and midfoot.

Another opportunity for improvement would be to design a standardized, easily reproducible, and reliable method of measurement. The Silfverskildt test combined with handheld goniometers currently appears to be the most commonly employed method for assessing contracture—but, like many techniques, these are subjective to examiner accuracy. Measurements vary depending on various factors such as the amount and location of force applied, whether or not the patient is relaxed, the number of measurement attempts, and whether or not a neutral foot position is adequately controlled for during the test. Consequently, reproducibility between examiners is often poor [3]. Devices have been proposed to correct this problem, but none have been widely adapted [1,4,5]. While individualized clinical experience continues to be necessary for assessment of gastrocnemius contracture, we would like to echo Dr. Polzer’s concerns that the pursuit of a standard measurement method should be a high priority going forward given the increased recognition of this pathology and the increased popularity of decompressive procedures.

References


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