Letters to the Editor

Equinus Deformity as a Factor in Forefoot Nerve Entrapment

Author’s Response

To the Editor:

I greatly appreciate Dr. Perez’s insight that it can be difficult to determine the true etiology of forefoot pain. He is correct that often there is involvement of the plantar plate, with either rupture or partial rupture. Before any forefoot nerve decompression, we assess the adjacent metatarsophalangeal joints with diagnostic ultrasound, in addition to making sure that during the clinical examination we differentiate the metatarsal head and metatarsophalangeal joint from the interspace. It is common to have patients experience pain with palpation of a diffuse area, which indicates that there may be more than just peripheral nerve entrapment.

If there is diffuse forefoot discomfort, including the peripheral nerve as well as metatarsalgia and the presence of a gastrocnemius equinus, then it makes perfect sense to remove excess pressure from the entire forefoot by means of gastrocnemius recession, a procedure that truly addresses the etiology.

Regarding Dr. Perez’s contention that I am trying to expand the indications for gastrocnemius recession, I would have to disagree. It is well known that equinus deformity can cause myriad foot pathologies. There is no question that severe equinus deformity can also act as an exogenous source of nerve entrapment in the forefoot interspace nerves. If the patient does not have gastrocnemius equinus, there is no indication for recession. If the patient demonstrates equinus deformity and multiple interspace nerve involvement, with or without metatarsophalangeal joint involvement, it would be more appropriate and efficacious to deal with the equinus deformity primarily, in conjunction with other indicated surgical procedures. Obviously, if there was no contributing equinus deformity, and the patient has forefoot nerve entrapment, then decompression would be indicated. Dr. Perez is correct in his observation about the contribution of equinus deformity in lesser-metatarsal overload. We failed to mention that with the Pressure-Specified Sensory Device, we also measure the digital quadrants’ sensory perception and have demonstrated return of sensation after a preoperative abnormal threshold, which would indicate that the forefoot nerve entrapment was the cause of the pain. Thus the combination of the reduction of pressure as documented with the F-Scan system, the improvement in digital sensation, and the clinical reduction in pain gives us confidence that the correct diagnosis was made, and that by addressing the true etiology (the equinus deformity), resolution of the nerve entrapment was achieved by endoscopic gastrocnemius recession.

I admire Dr. Perez’s understanding of the complexity of forefoot deformities. Often we fail to address the entire situation by performing surgery on “the tip of the iceberg.”

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