Posterior Tibial Tendon Dysfunction…continued from page 56


Shaffer plate.


ThermoCork shell with high medial flange.


Hiking boot with strong counter.

There is strong evidence to suggest that equinus plays a significant role in the progression of AAF. Equinus contracture breaks down the midtarsal joint and the medial longitudinal arch, reducing the effectiveness of the PT tendon. Physical therapy can be very helpful to both stretch the gastrocsoleal complex and strengthen the PT muscle. Surgical options may include some posterior muscle group and tendon lengthening, which will establish proper correction and alignment of the hindfoot.

At the outset, patients will usually have pain, tenderness, and swelling along the PT tendon. Ice therapy done for 20 minutes, three times a day should help to reduce some of the inflammation. Doctors may also prescribe non-steroidal anti-inflammatory drugs (NSAIDs).

In the mildest cases, custom foot orthotics should be considered. I prefer to use orthotics with a high medial flange to support the entire midfoot. The orthotics can be made from thermoplastics such as subortholen or polypropylene although not all patients will be able to tolerate the rigid control. More accommodative orthotics can also be made from Thermocork® or Ethylene Vinyl Acetate (EVA), again incorporating a high medial flange to prevent midfoot collapse. Furthermore, these orthotics can be posted extrinsically to provide more medial varus support. Some practitioners will favor a UCBL-type device to get maximum control. Incorporating a slight heel raise will help decrease any tension in the Achilles tendon if equinus is present.

Proper Shoes Required

As was learned at Pisa, a weak foundation will not support a sturdy building. Foot orthotics are only as useful as the shoes in which they are placed. The midfoot collapse associated with AAF and subsequent medial deviation of the STJ axis requires that the patient wear the proper shoes with firm shanks and stiff medial counters. Hiking boots are ideal for this patient. The strong counters, an upper that extends above the malleoli, lace closures, and firm soles provide better control for the entire foot. A foot orthotic exerts control below the STJ axis, while a hiking boot works above the STJ axis. In addition, depth boots will allow patients to comfortably substitute their custom foot orthotics in place of the removable inlays. There are other shoe modifications that may help stabilize the foot such as a Thomas Heel (an extension of the medial heel), a medial flare, or an external medial buttress.

More advanced cases need more rigid control. Traditional AFOs, unlike foot orthotics, will control the foot throughout the entire gait cycle, both in the stance and swing phases. They also exert control above and below the ankle and can control in all three planes of motion. Once again, it is essential that AFOs are worn with proper and well-fitting shoe gear.

In summary, the literature indicates that PTTD can be managed quite successfully non-operatively using combinations of the techniques discussed above, including foot orthotics, proper footwear, AFOs, and physical therapy. Depending on the severity of the case, results may be seen in as little as six weeks, or they may take up to a year. Surgical treatment can be reserved for those patients who fail an adequate trial of conservative measures. **QUICK FIND:** EDS00407

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