for injury with increasing age. Other studies have shown that older age is potentially protective against injuries because older runners listen to their body thus avoiding poor training habits. A higher BMI was also protective against injury in men. Running shoe age and injury rate were inconclusive. This study did not take into account weekly mileage, running experience, and previous injury. Previous injury is a significant predictor of rein jury in runners. Forty-two per cent were not completely healed prior to starting the training program. Lack of biomechanical assessment resulted in no significant effect of arch height on injury rate. Incorporating cross training into the training program and running surface didn't influence injury rate. In conclusion novice runners should build a good training base and listen to their bodies; especially if over 50, run in old shoes, and are not fully recovered from a previous leg or foot injury.

Yates B, Allen MJ, and Barnes MR

Outcome of Surgical Treatment of Medial Tibial Stress Syndrome

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Reviewed by Floyd Pacheco, DPM

Almost all athletes will suffer from medial tibial stress syndrome during their athletic career regardless of the level of competition. The etiology of medial tibial stress syndrome is well documented. The most common factors include increase in intensity of activity, training on uneven terrain, and training on hard surfaces, equinus, and the most common being over pronation.

This is a large study based on the outcome of surgical treatment of medial tibial stress syndrome. Seventy- eight patients underwent surgical intervention after meeting restriction criteria and maximizing conservative care. Forty-six were able to be followed up for this study. The surgical outcome and benefit was the main point of interest of this study. This was measured based on preoperative and postoperative visual pain analog and the comparison of pre-surgical athletic activity level and post-surgical athletic activity level.

All patients had a minimum of twelve months conservative treatment. Every patient prior to surgery underwent intracompartmental pressure measurements to rule out deep posterior compartment syndrome. Those patients with pressures consistent with compartment syndrome were excluded from the study. Patients also underwent triple phase bone scan to rule out stress fracture.

Preoperative conservative treatment included the traditional approaches. Many treatment regimens include change in activity, decreased activity, shoe modification, change of training surfaces, ice therapy, ultrasound, NSAIDs, corticosteroid injections, and foot orthosis for those patients that over pronate.

Surgical approach through a linear anterior medial incision of the mid to distal tibial shaft was utilized. The fascia bone interface of the deep posterior compartment was incised and released proximal and distally past the level of the flexor retinaculum. Care was taken to preserve the saphenous neurovascular bundle. Finally, a two centimeter wide portion of the periosteum was excised and the denuded bone was scored with an osteotome and cauterized.

Post-operative dressings were left in tact for two weeks. Patients were encouraged to bear weight and ambulate to tolerance with crutch assistance for the first two weeks post-operatively. Sports activity requiring weight bearing was not allowed for approximately 6 weeks regardless of pain level. These patients were encouraged to utilize stationary bike and swimming for cardiovascular maintenance.

The mean duration of postoperative follow-up was thirty months. Surgery significantly reduced pain levels by an average of 72% as indicated on the visual analog pain scale. An excellent result was achieved in 35% of the limbs, a good result in 34%, a fair result in 22%, and a poor result in 9%. Despite the success with regard to pain reduction, for a variety of reasons only nineteen (41%) of the athletes fully returned to their pre-symptom sports activity level and intensity.

This study provides three excellent points for the sports medicine surgeon. This study specifically focused on pain relief and an athlete that requires surgical treatment for medial tibial stress syndrome requires counseling that return to pre-symptom sports activity is not likely. Previous literature has reported a poor outcome for those patients undergoing surgery for this condition. This study proved excellent to good results in 69% of the athletes in regards to pain relief.

Finally, surgical technique may play a role on outcome. These patients had a portion of the periosteum excised and the fascia bone interface is released to level of the flexor retinaculum. This has proven beneficial in the results of this study as well as in horses. This same procedure has been utilized in horses with a similar condition known as "buck shins".

President's Message (Continued)

There are many ways in which you can participate and make an impact. After all, it is YOUR Academy and all of us are responsible for its direction and success.

The other day, I had a runner who presented for a follow-up regarding his Achilles tendinosis. As we discussed his progress, he recalled how that many years ago back in New York, he had actually contacted Dr. George Sheehan directly regarding the care of his feet. He went on to say that Dr. Sheehan recommended he visit a Podiatric Physician if he wanted the best possible care. We all know how Dr. Sheehan played a significant role in putting Podiatric Sports Medicine "on the map" and providing us with almost instant credibility. I am pleased to say that there are now many "Dr. Sheehans" out there, recommending us as the experts in lower extremity sports medicine. This has occurred over time due to the diligence of our predecessors and will continue only through increased involvement by our current membership.