Dynamic Chiropractic

ORTHOTICS & ORTHOPEADICS

Achilles Tendon or Achilles' Heel?

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This case is of a 74 year old fit male, 5'8", 160 pounds, who suffered a ruptured Achilles tendon while playing racquetball. It encompasses interdisciplinary cooperation of an internist, podiatrist and chiropractor in the best interest of the patient and serves to illustrate some aspects which may provide pointers and food for thoughtful introspection.

The role of the "gatekeeper" internist in the health care plan of the patient, an HMO without walls, was simply to provide the appropriate referrals in a remarkable display of cooperation out of appreciation of the patient's holistic viewpoint and desires.

Current centennial chiropractic maturity level leads to the realization that not only does healing have various facets and approaches but also that no field has a lock on the single best way. The ruptured tendon could be repaired only by surgery, but surgery alone could not restore optimum function. The complexity of foot-leg function, even absent the effects on and relation to the rest of the body, properly demanded podiatric attention. The chiropractor emphasizing physical therapy and rehabilitation was the choice for that particular aspect.

Despite immediate crutch use and the application of a proprietary removable boot cast after the injury, an MRI disclosed a defect, which at surgery revealed itself to be a gap of approximately three-quarters of an inch.

Icing at the time of injury may have limited the substantial hematoma present at surgery but could not prevent the typical retraction of the tendon ends or the recurving of the fibrils to increase the gap. A plaster BK cast was applied after surgery with the foot in plantar flexion.

Removal of the final cast after six weeks left a very edematous foot and leg capable of only limited, weak active motion. Rehabilitation began (twice weekly) with whirlpool massage action directed at the circulation problem. Here is where the "managed care" difficulties enter. Daily visits would not have been too much. Depending on a patient's self-care is unrealistic, but this is the order of the day.

It is imperative then that maximum concentration on proper protocol and care be tendered. The patient, for example, must be instructed on the use of elastic wraps. The required tension is one-third to one-half available stretch, depending on muscle and edema condition. Gradually increasing tension from the bottom up gains a preferred gradient response. Also the spacing of the wraps needs to be even. The patient must be checked on self-application to insure that they are physically capable of doing the wrapping. An older patient may not be able to start wrapping at the base of the toes. The patient may require assistance, and that should be ascertained before the limb is out of bed.

Surgical supply elastic hose simplify matters, of course, but are not always financially feasible, especially if custom made. Some plans may be responsive to insistence, but the doctor must be willing to take the time.

If whirlpool is used it is more than just a question of an assistant dumping a part in a tank and

letting fly. The water level, temperature, flow pressure and direction must be specifically understood from a prescription no less demanding than an MD's for a powerful drug. While an iced whirlpool may be the choice for a healthy young athlete, for the older patient, especially if there is an arterial problem, tepid temperatures may be indicated even in face of edema.

For safety's sake, it may be wise to get a pneumoplethysmographic study from a colleague familiar with such testing or the more likely podiatrist or a peripheral vascular specialist. Wisdom in these matters precludes reliance on clinical data or even segmental plethysmographic checking with only the commonly used Doppler. More than the rough screening value of such testing is necessary and for the edema only full scale pneumoplethysmographic careful evaluation is indicated for protection of patient and doctor to avoid complications. (That goes for any question regarding circulation.)

Orthoses were advisable, particularly since there was greater hyperpronation on the already venous-embarrassed side of the injury. It was apparent that the violent injury, possibly aided and abetted by the extensive surgery, had affected the nerve as well as venous supply since heel paresthesia persisted. It was deemed appropriate to have the more exacting procedures of podiatric orthotic casting and fabrication done as a further display of the exhibited interdisciplinary cooperation, to say nothing of possible additional patient benefit.

Such cooperation inevitably accrues not just to the greatest advantage to the patient but to the appreciation each discipline learns to respect in the capabilities and advantages of the other. In the end there are round robin gains. It remains only to seek out those who have the capacity to realize the advantages of such cooperation and when their own capabilities dictate such need.

I hope in this our centennial year our profession has achieved our rightful place in the healing arts to expect and receive, as well as give, such cooperation.

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