Combining Physical Therapy and Podiatry for a Patient with Plantar Fasciitis: A Case Report
Kathleen Barnes, BS, DPT student; Kirsten Buchanan, PhD, PT, ATC
Department of Physical Therapy, University of New England, Portland, ME

Unique
- One million cases of plantar fasciitis (PF) are reported annually in the United States.1
- Studies have separately investigated the effectiveness of physical therapy (PT) interventions as well as steroid injections from podiatry – but not in conjunction with each other.
- There is a lack of research investigating an interdisciplinary approach utilizing PT and podiatry for PF.

Purpose
This case report investigated an interdisciplinary approach combining physical therapy and podiatry utilizing steroid injections in the treatment of a patient with plantar fasciitis.

Foundation
- PF Risk Factors
  - Repetitive movements
  - Tight LE musculature
  - High or low arch structures of the foot
- PT literature has found stretching, strengthening and Graston Technique® to be beneficial.
- Podiatry literature has found steroid injections to have similar short term results as PT.
- There is a paucity of literature discussing the use of both PT and steroid injections.

Description
- 58-year-old female army veteran with bilateral foot pain
- 14 PT visits over 3-months
- First 9 visits focused on:
  - Decreasing inflammation
  - Stretching the gastrocnemius and soleus
  - Strengthening the lower leg and foot
- Received a steroid injection after 9th PT visit
- Last 5 visits focused on:
  - Balance
  - Strengthening the hip musculature
  - Stretching the gastrocnemius, soleus, and hip flexors

Interventions

Flexibility
- Gastrocnemius
- Soleus
- Plantar fascia
- Hip flexors

Therapeutic Exercise
- Towel curls
- Toe flexion / extension
- Battery pick-ups
- Toe swaps
- Heel raises
- Forward lunges
- Ankle plantar flexion, eversion, inversion
- Toe flexion/ plantarflexion
- Elliptical
- Reverse lunges
- Standing hip abductions, adductions, and extensions

Neuromuscular Re-education
- Unilateral balance

Graston Technique®
- To plantar fascia

Modalties
- Ice

LE Systems Review
- Musculoskeletal
  - Decreased strength
  - Decreased ROM
- Neuromuscular
  - Decreased balance
  - Impaired sensation

Interventions Continued

- Toe Swaps
  - Extend Great Toe
  - Extend Toes 2-5

Observations

Tests & Measures
- Left Ankle Strength
- Eversion: 3/5
- Inversion: 3/5
- ROM
- Dorsiflexion R: 10˚ L: 0˚
- Dorsiflexion R: 16˚ L:12˚
- Numeric Pain Rating Scale
- Left Heel: 6/10 Bilateral PF
- Right Heel: 6/10 Bilateral PF
- Foot and Ankle Ability Measure
- ADL: 35/84 Sports: 9/32
- Discharge
- ADL: 17/84 Sports: 16/32

Conclusion
The combination of traditional physical therapy and steroid injection was beneficial for this patient. Future studies should continue to investigate the effects of an interdisciplinary approach.

Acknowledgements
The author acknowledges Kirsten Buchanan, PhD, PT, ATC for assistance with case report conceptualization and Jennifer DeSalvo, PT, DPT, for supervision.

References