



Immediate Management of a Grade 2 Hamstring Strain: A Case Study on an NFL Wide Receiver

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Disclosures

I have no financial disclosures or
conflicts of interest



Outline

- History and Examination
- Immediate Management
- Evidence Based Early Interventions

History & Evaluation



History

- 25-year-old NFL Wide Receiver
- No history of hamstring strains
- Running a route and felt his hamstring grab

Evaluation

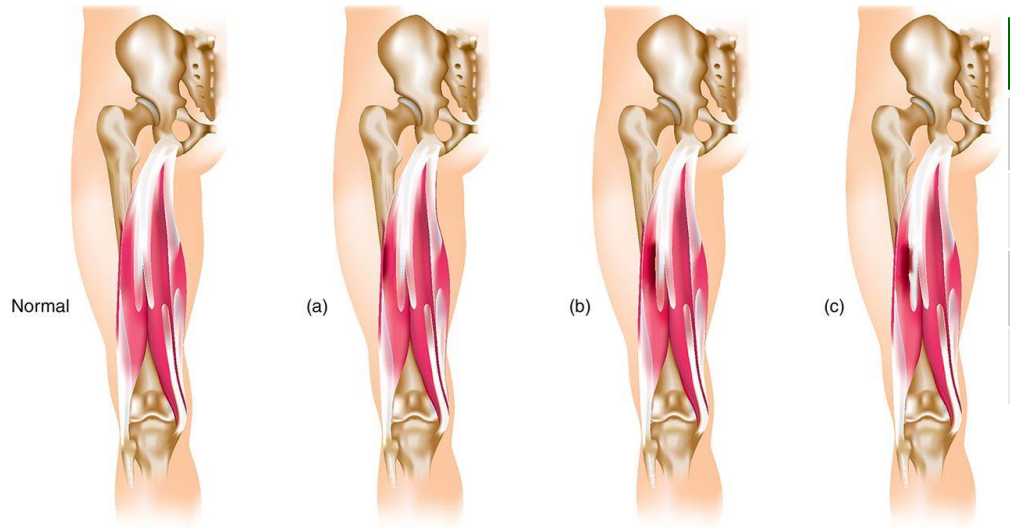
- No ecchymosis/ swelling
- TTP over distal semimembranosus muscle
- Active Knee Extension Test = 25° deficit
- Prone HS MMT: 90° = 4+/5, 60°/30° = 4/5

MRI Results

- Grade 2 semimembranosus strain at MTJ
- BAMIC: 2B

Evaluation

Active Knee Extension Test



BAMIC System

Grade	
0	Normal MRI
1	Small Tears
2	Moderate Tears
3	Extensive Tears
4	Full Thickness Tear

Anatomical Site	
a	Myofascial
b	Muscle-Tendon Junction
c	Tendon

Immediate Management



Post Injury:

- Pain management modalities
- Gave Incrediwear sleeve

Day 1:

- Pool walking/ exercises
- ROM exercises
- Eccentric exercises
- Lumbopelvic motor control exercises
- Modalities

Day 2:

- Began pool jogging
- Continued light eccentric strengthening
- Progressed LE strengthening as tolerated

Day 3-7:

- Continued to progress eccentric exercises
- Progressed LE strengthening as tolerated
- Continued with lumbopelvic control exercises

Specific Timing of Interventions:

- Dry needling on day 5
- Alter-G running day 6
- PPP injection on day 7
- Linear running on day 11





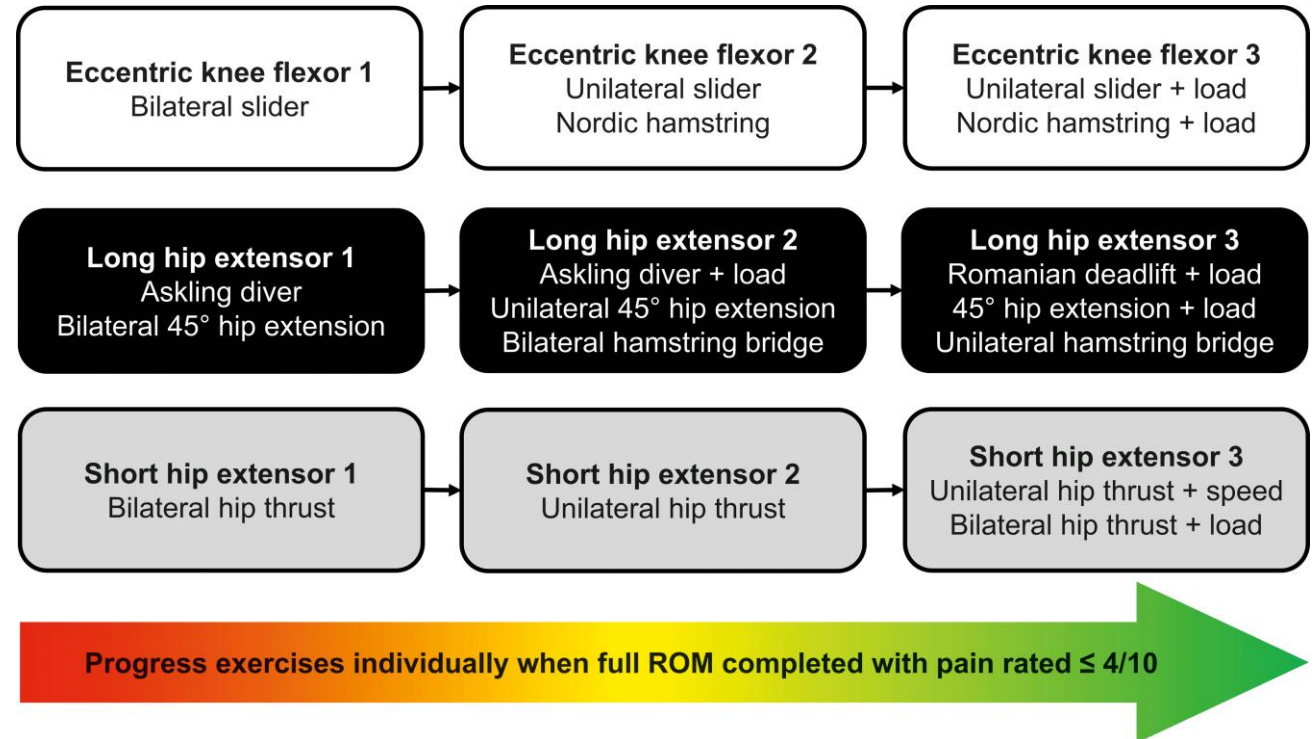
Evidence Based Early Interventions

- ✓ Agility and Trunk Stability
- ✓ Early Eccentric Exercises
- ✓ Early Return to Running
- ✓ Biologics and Other Interventions

Progressive Agility & Trunk Stability (PATs)

- Frontal and transverse plane exercises
- Place the pelvis in optimal position
- May reduce reinjury rate following HSI

Eccentric Exercises



J Athl Train. 2021;57(2):125-135. doi:10.4085/1062-6050-0707.20

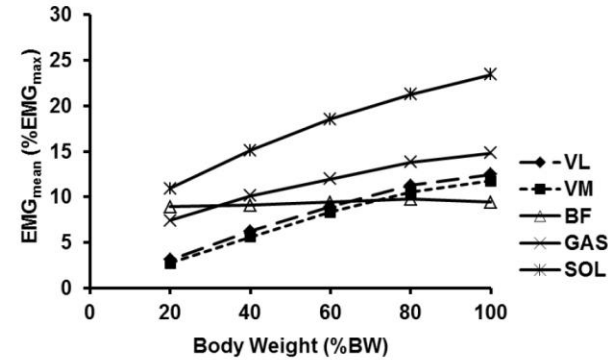
Early Return to Running

Options to begin early running:

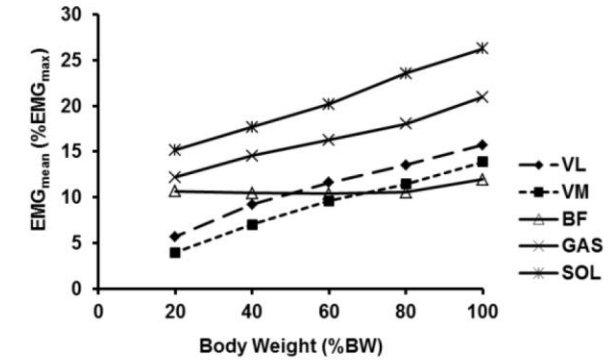
- Therapy Pool
- Anti-gravity Treadmill??

Safe to begin land based running if the athlete can ambulate with $\leq 4/10$ pain

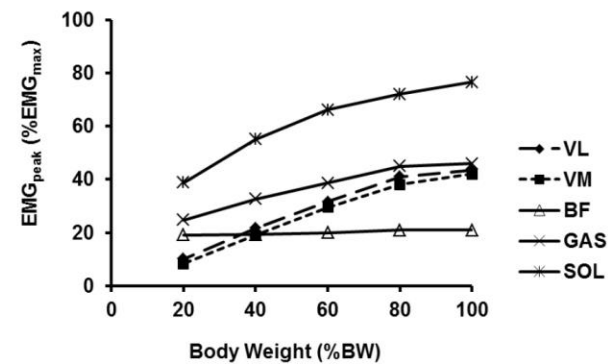
2A



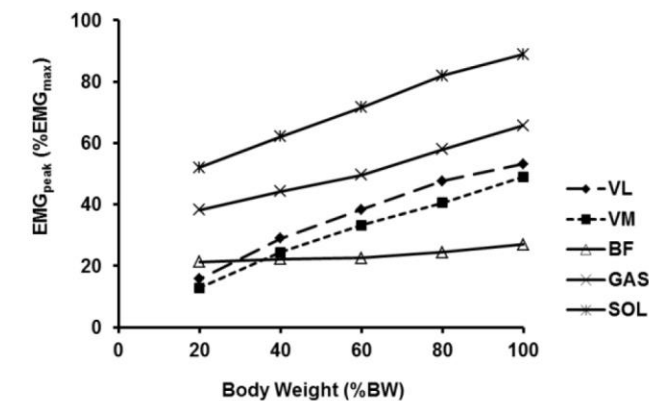
2B



2C



2D



Biologics

- PRP
- PPP



Other Interventions

- Nerve Glides
- Hip Flexor Strengthening
- Modalities
 - Dry Needling
 - Laser

Overview

- Early eccentric exercises
- Early return to running
- Early postural agility and trunk Stability
- Nerve glides
- Hip flexor strengthening

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THANK YOU!

***i*NCREDIWEAR**



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