

Hamstring Rehabilitation Following a Muscle Strain in Collegiate Football Player

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Introduction

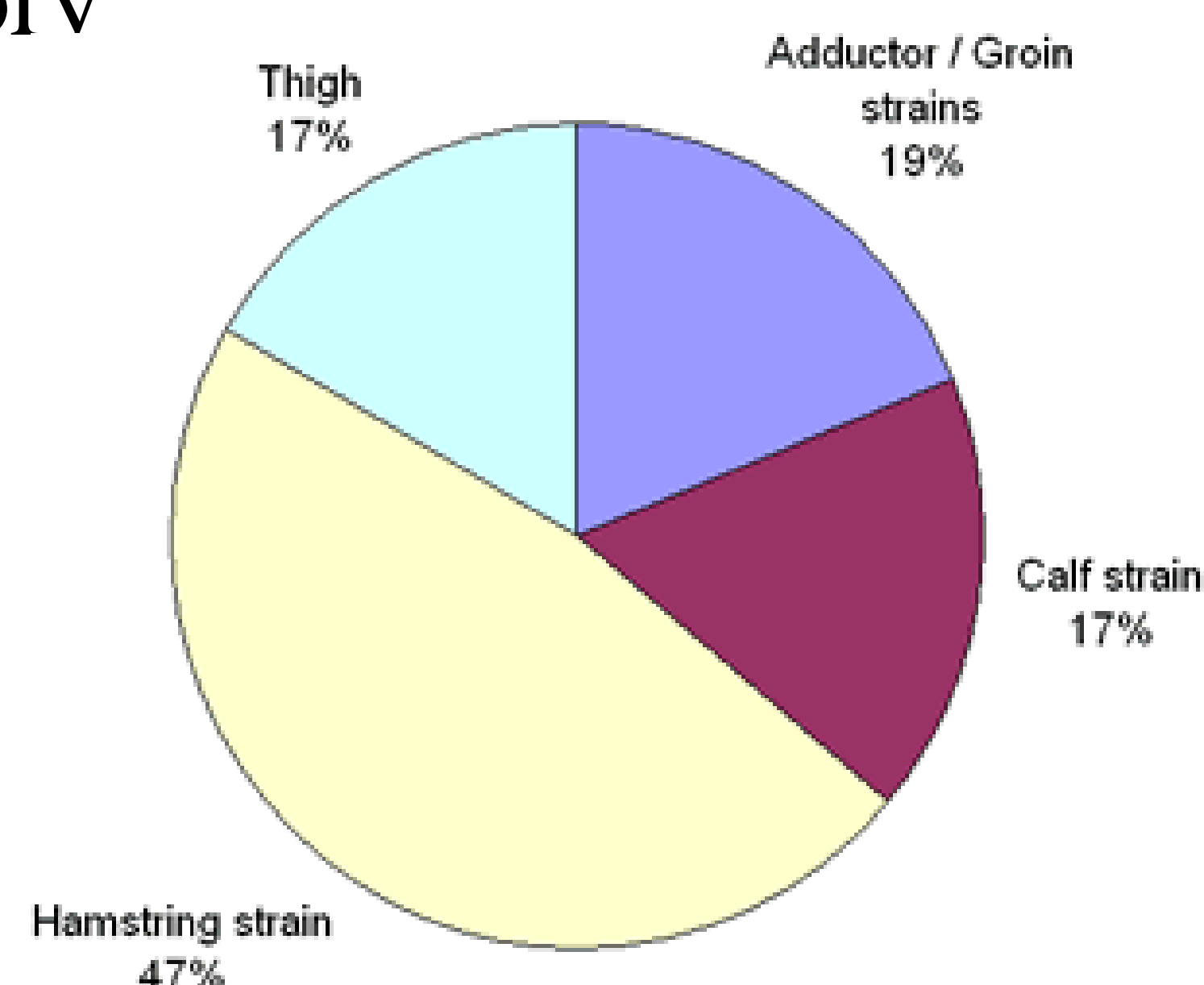
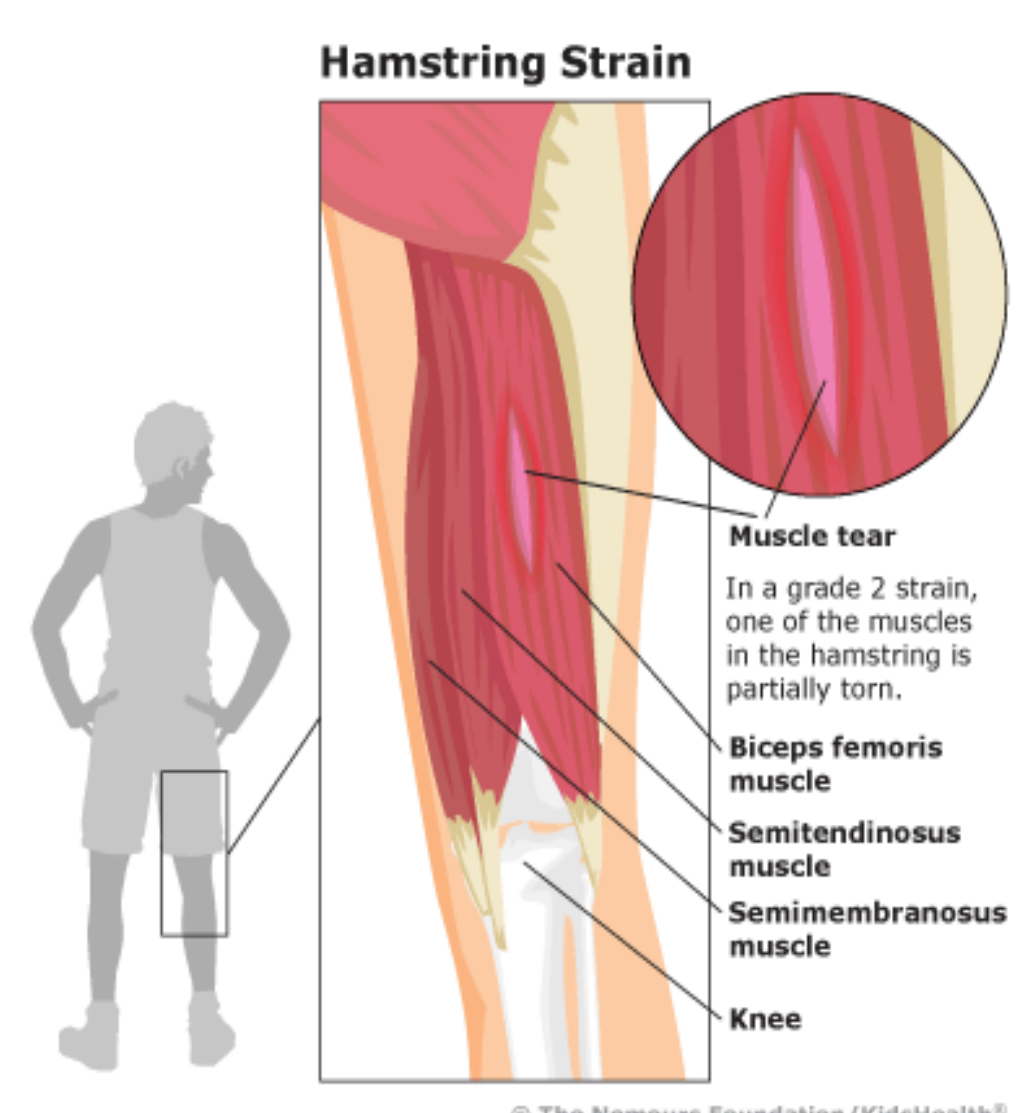
Athlete was a collegiate wide receiver. The athlete has prior history of several lower extremity muscle strains dating back to high school. During the current preseason practice athlete was constantly complaining of severe left hamstring tightness and was often undergoing sideline treatment. During the second week of preseason the athlete was removed from participation by the athletic training staff due to an antalgic gait observed while walking and running.

Purpose

One domain of athletic training is treatment and rehabilitation. This case demonstrated a combination of strength and flexibility training during rehabilitation to not only return athlete to practice but also help prevent future injuries.

Background

- 19-year old NAIA wide receiver
- Right hand/leg dominant
- Previous history of lower body muscle strains
- No known medical history



Differential Diagnosis

- Hamstring Strain
- Ischial tuberosity avulsion
- Muscle Contusion

Clinical Evaluation

- Palpation revealed point tenderness and swelling over the proximal left thigh from the medial aspect and extending to the midline of the thigh.
- ROM WNL, however pain during knee flexion and hip extension.
- Strength during knee flexion measured at 3/5 with pain, and hip extension 4/5 with mild pain.

Treatment

Initial treatment included passive stretching followed by electrical stimulation in association with cryotherapy over the area of injury 3x daily, for controlling pain and reduction of swelling. After initial pain and swelling subsided, the athlete was prescribed a patient centered twice-daily stretching regimen and a full lower body and core-strengthening program. The athlete demonstrated improvement in flexibility and overall strength and was cleared to practice within three weeks of initiation injury.

Implications

Muscle strains and more specifically hamstring strains are one of the most common injuries in high explosive sports, accounting for up to 1/3 of all muscle injuries. The high frequency of injury has led to excessive testing for prevention protocol; yet much of the data has still inconclusive. Several studies provided statistical data for decreased hamstring strain rates following a proper stretching routine. However, despite vast research focused on rehabilitation, a unique aspect to hamstring strains is the high rate of reoccurrence following athlete's return to play. Therefore, this case suggested strengthening techniques in addition to stretching during the rehabilitation program to accelerate athletes return to play status and help prevent reoccurring injuries.

Conclusion

This case explained the return to play following a strengthening and stretching routine during athlete's rehabilitation. It further highlighted the current stretching and strengthening protocol specifically designed for the athlete prior to participation that has prevented the reoccurrences of another thigh injury.

References

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