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Worksheet 4

Adductor Strain

TOPIC- Comparing surgical intervention against conservative treatment for the adductor strain

PICO- With female college athletes with adductor strains, is surgical intervention more effective than conservative treatment when it comes to reducing the time loss from injury

Introduction

- The adductor muscle group includes three main adductor muscles, adductor longus, brevis, and magnus, with the Longus being the most commonly injured. (Kiel, 2018).
- Adductor strains “tend to occur at the musculotendinous junction but may also occur at the bone-tendon junction, producing tenderness on deep palpation of the involved muscle and pain on resisted adduction” (Elattar, 2016).
- DDX of groin pain is “broad and includes tendonitis (iliopsoas, rectus femoris), bursitis (iliopsoas), athletic pubalgia (sports hernia, sportsman’s hernia, pre-hernia complex, Gilmore groin)” and much more. (Kiel, 2018).
- Risk factors that lead to an adductor strain can include “previous hip or groin injury, age, weak adductors, muscle fatigue, decreased range of motion, and inadequate stretching of the adductor muscle complex” (Kiel, 2018).
- When comparing the data with gender, “the dominant mechanism of injury for men was contact, while for women, it was gradual/overuse” (Kerbel, 2018). Also, in sex-comparable sports, “men had a significantly higher rate of hip and groin injuries per 100,000 AEs compared with women (59.53 vs 42.27)” (Kerbel, 2018).

More statistics about the injury and how common it is in the sport are included with the epidemiology.

Epidemiology

- “Muscle strain is the primary injury among athletes, accounting for up to 31% of visits. Among European soccer players, adductor muscle injuries were the second most commonly injured muscle group (23%) behind hamstrings (37%)” (Kiel, 2018).
- Adductor strains “represent one of the most common groin injuries among athletes. Adductor strains accounted for 10% of all injuries in soccer players” (Elattar, 2016).

Some relevant information and statistics on the injury and the relations to soccer are included within the background.

Background of the sport/condition

- The patient’s “dominant leg is more commonly injured and more likely to sustain significant injury. Adductor injuries typically occur when the athlete pushes off in the opposite direction” (Kiel, 2018).
- For soccer players, generally “If their leg swinging in adduction meets a significant resistive abductive force such as another player, this can place a significant load on the adductor complex leading to injury” (Kiel, 2018).

- The adductor strain is classified in 3 degrees. First degree is pain, but still having ROM and strength. Second is Pain with loss of strength. And Third, the most intense, is a complete disruption of muscle fibers with loss of strength and ROM (Kiel, 2018).

Treatment

- “Ultrasound and MRI are used in the acute setting to determine severity and surrounding damage.” (Elattar, 2016). An MRI can also be used to show edema and hemorrhaging.
- “Radiographic evaluation is the initial modality of choice for suspected adductor strain” (Kiel, 2018).
- Acute or non-severe adductor strains normally get treated with rest and anti-inflammatory drugs (NSAIDS). (Elattar,2016)
- Rehab for post-acute injury should include stretching, ROM exercises, and strength conditioning for the most successful return to play time frame. (Kiel, 2018)
- “Acute complete adductor tears in athletes generally require surgical repair” (Elattar,2016).

Single Treatment whichever surgery has the most data and is most effective.

- Open repair of the acute distal/proximal adductor muscles, or proximal adductor avulsion. (McNeilan, 2018)
- or, parainguinal approach and bioabsorbable suture anchors into the adductor longus anatomic footprint (Gerhardt, 2019).

Recovery

- Recovery time could be between 4-8 weeks usually, but “for chronic strains, the recovery period and return to sports may be as long as 6 months” (Elattar, 2016).
- Rehabilitation can have a time duration through four phases. The first phase including “maximum protection with no weight bearing for 4 weeks, then progression to weight bearing as tolerated”, and a brace is worn for the first 6 weeks to limit ROM. Phase two is between weeks 6-12 with increased ROM and strengthening exercises. Phase three, weeks 12-16 is a concentration on strength and endurance with the adductor muscles and upper leg muscles. Phase four requires a running progression with a plan for return to play with a 5-6 month time frame (McNeilan, 2018).

Bibliography

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