Sickle Cell Trait in a Division III Football Player
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**Background:** On August 19, 2013 a 19 year-old male Division III football player came to the athletic training facility with a complaint of abdominal cramping which had not ceased for eight hours. A thorough medical history regarding previous hospitalization for a similar pathology revealed the athlete has had episodes of sickle cell trait. After rehydration attempts for 1.5 hours failed to relieve the patient’s primary complaint, it was decided to send him to the emergency room for follow-up care. **Differential Diagnosis:** Rhabdomyolysis, Dehydration, Sickle cell anemia

**Treatment:** Upon admittance to the hospital, the patient was diagnosed with Sickle Cell trait. The treatment protocol consisted of saline solution fluids given intravenously at 150 mL/hour, over a 7 hour period with increased dosages as needed. Cyclobenzaprine was also prescribed to relieve muscles spasm at a dosage of 5mg every 8 hours. 650 mg of Acetaminophen was also administered every 4 hours to relieve acute pain. After the athlete was released from the hospital on August 20, 2013, he was seen by Rowan’s team physician prior to starting a progressive return to play protocol. He was educated on proper preventative diet and fluid intake prior to activity, as well as instructed not to participate in maximum exertional activities until further notice. The patient was cleared to return to practice on August 21st but was limited to a 50% performance level. However, mid-way through this initial practice, severe abdominal cramps and back spasms resumed. The patient was treated with ice packs, medi-lyte pills, and Gatorade for hydration and cramping symptoms. Following 2 days of rest, the patient returned back to practice and restarted the progressive return to play protocol. After 50% exertion was passed, the performance level increased to 75%, and then full contact practice. The athlete had not had any symptoms since the start of the protocol. A few weeks later (on a Tuesday), the ambient temperature was 91 degrees which caused cramping to resume in this athlete. Treatment was immediately administered to reduce spasm within the affected muscles. The athlete has been closely monitored and educated on the importance of proper daily nutrition and hydration. September 18th, on a reasonably cool day, the cramps returned and the athlete was treated once again. A pattern was recognized that each time a cramping event occurred it was on a Tuesday, leading to further questioning of the athlete. The athlete described his diet for the day was limited due to time restrictions that did not allow appropriate nourishment. **Uniqueness:** The uniqueness of this individual case is the recognition of an unusual repetition occurring during the same day each week. Recurrence of the event led to health care providers to determine the causative factor. Dietary inconsistency proved that it had significant impact on the numerous episodes. It is also unique because, these type of symptoms are typically present with sickle cell disease, rarely occurring with sickle cell trait. **Conclusion:** Sickle cell trait in the athletic population can be dangerous causing athletes to be more susceptible to heat related injuries and death. It is important for health care providers to know what athletes carry it and the preventative measures. The fact that this athlete has had multiple episodes of Sickle Cell Trait is alarming. The athletic trainer, team physician, and coaches communicate regularly to reduce the risks that may have caused the original onset. **Word Count:** 562