Non-Traumatic Stroke in a Collegiate Softball Player: A Case Study
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Background: Sarah*, a 21 year old Caucasian, female softball player presented to the athletic training room complaining of lightheadedness, tingling in her fingers and was more emotional than normal in the late fall of 2012. During conditioning drills her teammates and coach noticed that she was acting abnormally; not following running drills and noticeably different in demeanor. Sarah had been diagnosed a month prior with viral meningitis and had been cleared to participate by her physician. She admitted to the athletic trainer that the day before she was experiencing symptoms of “black outs” where she did not faint but was losing sight periodically. Sarah is otherwise a healthy 21 year old that denied any recreational drug use, no tobacco use in her history, but did occasionally drink socially. She denied any head trauma. She was not taking any medication regularly. Athlete had no family history of clotting, stroke, or migraine.

Differential Diagnosis: Initially, Sarah was oriented and she was able to communicate without any difficulty or deficit. She was clearly emotional and agitated about her symptoms. She was referred to the team physician for an appointment and was seen within 3 hours of initial complaint. Based upon symptoms and previous history a differential diagnosis included: complications from viral meningitis, cardio-pulmonary issues, or transient ischemic attack. Treatment: After Sarah arrived at the team physician’s office, her symptoms deteriorated in the waiting room. She experienced a loss of use of her right arm, tongue numbness, dysarthria, and facial droop. She was transferred by ambulance to emergency room for treatment. Upon admission, athlete had a toxicology screen, A1C, CBC, BNP, TSH, free T4, INR, PT, PTT, CT scan, Echocardiogram, MRI, and Cerebral arteriogram. She was diagnosed with an acute stroke, left hemisphere, secondary to vasculitis. Sarah was treated with medications, occupational and physical therapy for symptoms of acute stroke. She was hospitalized for four days before she was discharged. She recuperated at home for 1 week prior to returning to the university for the semester. She continued to follow up with regular team physician visits in athletic training room to monitor condition, had neurological consults, and a follow up MRI one month post-stroke. Her activity progression began two weeks after her initial hospitalization with light walking. One month following the stroke she started jogging at 60% slowly increasing her intensity. Her activity was monitored, and her blood pressure, heart rate and rate of perceived exertion were checked regularly. During the winter break she went to physical therapy where she progressed to running, weight lifting and sport specific exercises. When she returned from the semester break she conditioned with the team and was returned to full participation 4 months post-stroke. She experienced minimal, but noted limitations of decreased quickness and reaction speed as compared to pre-stroke activity. Sarah is currently finishing her degree and she exercises regularly with no residual effects from her stroke. Uniqueness: Prior to the stroke, Sarah was a healthy and active 21 year old. She had no family history of stroke, no contraceptive use, or recreational drug use. She also had no known trauma. She was diagnosed the prior month with viral meningitis. Conclusion: Sarah was a healthy collegiate athlete who experienced a stroke with temporary physical limitations. She recovered fully over a 4 month period and not only had no activities of daily living problems but she was able to participate in collegiate softball. Word Count: 564.