Background: A twenty-year old football player developed influenza-like symptoms during pre-season football camp. He complained of a severe headache that began in the occipital region and radiated to the anterior portion of the skull. The athlete described his headache as a throbbing pain and pressure behind his eyes with photophobia and sensitivity to noise. In addition, his symptoms consisted of nausea, vomiting, diarrhea, chills, dizziness, confusion, muscle and joint pain, and fatigue. He remembered removing something from his head that he thought was a scab two days earlier that upon examination was a tick instead of a scab. The athlete had a history of asthma, elevated triglycerides as well as a recent case of the West Nile Virus. He was referred to a physician by the athletic trainer and hospitalized two days later for Ehrlichiosis. Differential Diagnosis: Rocky Mountain spotted fever, Lyme disease, Encephalitis, Tularemia, Babesiosis, West Nile Virus, Bacterial Meningitis, Toxic Shock Syndrome, Q fever, Rubeola Treatment: The athlete was admitted to the hospital by the attending physician, and given a complete physical examination which was normal then started on intravenous Rocephin and Vibramycin (antibiotics). A computed tomography (CT) of the head was performed to rule out brain hemorrhaging or lesions. A urinalysis and urine culture were done which were both negative for any bacteria or yeast. Blood tests were performed to identify any elevation in antibodies, proteins or enzymes which might indicate Human Granulocyte Ehrlichiosis (HGE) or Lyme disease. One of the blood test was positive showing the presence of antibodies specific to HGE. A blood count was ordered which identified that both the white blood cell count (WBCs) and red blood cell count (RBCs) were low compared to the normal reference range which could cause symptoms of fatigue. There was also a high concentration of monocytes, which are white blood cells that fight against disease. The athlete was much improved by the second day and was discharged from the hospital with instruction to take Vibramycin, an antibiotic, for three weeks. He was told not to practice until he had a follow up examination by his primary care physician; or to return to play until his RBC count returned to normal. Uniqueness: Ehrlichiosis is an emerging tick-borne infectious disease caused by bacteria that infects granulocytes or monocytes. This disease is common in the upper Midwest and Northeast and is difficult to diagnose because its symptoms are very similar to many medical conditions. Athletic Trainers need to be aware of the symptoms of tick-borne illnesses such as Ehrlichiosis as this condition can be life threatening and immediate physician referral is required. Conclusion: The athlete was diagnosed with Ehrlichiosis and treated with antibiotics. His condition improved substantially within 24 hours of ingesting the medication. The athlete was discharged from the hospital after two days with instructions to take Vibramycin (Doxycycline) for three weeks and not to return to full participation in football until examined by his primary care physician and until his RBC count returned to normal. He missed two weeks of pre-season football camp and was released for full participation the first day of the season. Key Words: Ehrlichiosis, Tick, HGE