BILATERAL PITTING EDEMA IN A COLLEGIATE MALE SOCCER PLAYER
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Background: An 18 year old male Division I soccer player presented with bilateral pitting edema of the ankles, encircling the medial and lateral malleoli. The athlete did not recall any mechanism of injury and stated he did not feel ill, though he did appear mildly jaundiced at the time of presentation. A physical examination including palpation of the leg and range of motion assessment were unremarkable. Tests for ligamentous injury, as well as Homan’s Sign, were negative. Treatment at this point consisted of effleurage for 5-10 minutes, followed by the application of a compressionette. He was referred to the institution’s general practitioner for further evaluation. The athlete’s past medical history listed osteomyelitis. Differential Diagnosis: Bilateral ankle sprains, viral illness, allergic reaction, gout, systemic disease, thrombophlebitis. Treatment: Diagnostic tests conducted by the team physician indicated low platelet and hemoglobin levels, elevated hematocrit and total bilirubin, and liver function tests 15-20x normal. The athlete was referred and examined by a hematologist at 2 weeks S/P initial presentation. At this time the pitting edema had resolved and previous treatments of effleurage and compressionette were discontinued. Diagnostic tests conducted at this time concurred with previous results. Additional tests included a negative mononucleosis screen, peripheral blood smear revealing no blasts or early forms of leukemia, non-reactive Hepatitis A and B screens and abnormal protein levels. The athlete was then referred to a gastroenterologist. New tests during the 5th week confirmed previous results. An abdominal ultrasound was performed during week 6 and found increased echogenicity along the portal triad and spleen, indicating enlargement. A follow-up blood test revealed positive findings of antinuclear antibodies as well as anti-smooth muscle antibody levels elevated at 148. At 8 weeks S/P initial onset, a final diagnosis of Chronic Autoimmune Hepatitis was determined. The athlete began a course of Prednisone, Imuran, calcium, Vitamin D and Folic Acid. At 16 weeks, the athlete was given consent to begin physical activity, excluding collision sports. At 19 weeks, an upper endoscopy to rule out varices and portal hypertension was performed. The procedure was unremarkable for both. Over the next 5 weeks, the athlete’s liver function tests (LFT) never dropped below 2 times normal, indicating he was a non-responder to traditional treatment. The gastroenterologist suggested a liver biopsy to identify liver damage and confirm the diagnosis. At 24 weeks, a biopsy identified disruption of the normal hepatic architecture, with minimal to mild predominantly mononuclear inflammatory infiltrate. There was no significant inflammation of hepatic nodules or stainable iron or copper. There was evidence of micronodular cirrhosis, but regenerative changes were found. At 31 weeks, a second ultrasound was performed, with similar results: an increased coarseness of the echotexture indicating hepatitis. The athlete’s pharmacotherapy was decreased due to continued improvement. At 32 weeks, the blood tests were normal, except for LFTs that had stabilized around 2 times normal. The athlete was cleared to return to soccer, but not collision sports. The final diagnosis was cirrhosis of the liver resulting from Chronic Autoimmune Hepatitis.

Uniqueness: Autoimmune diseases affect approximately 8% of the population, 78% of whom are women. In 1996 it was reported that chronic autoimmune hepatitis accounted for 1 in every 235,294 people in the US; 50% of whom are over 40 years at diagnosis. Conclusions: Knowledge of general medical conditions is imperative for the certified athletic trainer. This athlete presented with signs and symptoms common to any number of conditions and did not fit the typical demographic of a patient with autoimmune hepatitis. Clinicians should be aware of signs and symptoms of autoimmune diseases, and be willing to look beyond the obvious during
assessment. **Key Words:** Autoimmune, Hepatitis, Cirrhosis, liver function tests, endoscopy. **Word Count:** 599
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