An Unusual Case of Ankle Pain

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Clinical Vignette

A 31 year-old male without past medical history presented to the ED complaining of bilateral ankle pain, left much worse than right. No recent trauma. imaging of both ankles showed mild soft tissue swelling. His CRP was elevated at 194 mg/L and ESR was 34 mm/Hr. Attempt at arthrocentesis was unsuccessful with minimal fluid obtained, no crystals were seen. The patient was then admitted to the internal medicine service.

On initial encounter the patient said he recently had a sore throat approximately 10 days prior to coming to the hospital. He had no cough and noticed tender lymph nodes in his neck while he had the sore throat. He did not seek medical attention due to recently starting a new job and was without health insurance.

Inpatient lab work up revealed an elevated ASO at 900 IU/mL and anti-deoxyribonuclease B antibody at 1449 U/mL. This patient met criteria for acute rheumatic fever given his polyarthralgia, arthritis, and elevated inflammatory markers. Echocardiogram performed did not show any vegetations or valvular disease. He was treated with IM penicillin. Interestingly, the patient was also worked up for sexually transmitted infection which revealed positive gonorrhea throat swab. He was also treated for disseminated gonococcal infection with intravenous ceftriaxone.

Media

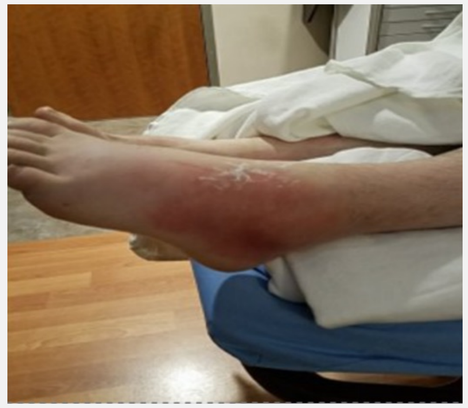

Figure 1. Photo of patient's swollen, red ankle

Major criteria	Minor criteria
Carditis	Hyperpyrexia
Arthritis	Arthralgia, without other signs of inflammation
Chorea	Laboratory indicators of acute phase:
Erythema marginatum	ESR, CRP
Subcutaneous nodules	Prolonged PR interval in ECG
And evidence of antecedent streptococcal infection – Throat swab culture or rapid antigen test – Elevated/increasing anti-streptococcal antibody titer in serum	

Figure 2: 1992 Jones Criteria

Major criteria	
Low risk population	**High risk population**
Carditis (clinical or subclinical)	Carditis (clinical or subclinical)
Arthritis – only polyarthritis	Arthritis – monoarthritis or polyarthritis
Chorea	Polyarthralgia
Erythema marginatum	Chorea
Subcutaneous nodules	Erythema marginatum
	Subcutaneous nodules
Minor criteria	
Low risk population	**High risk population**
Polyarthralgia	Monoarthralgia
Hyperpyrexia (≥ 38.5ºC)	Hyperpyrexia (≥ 38.0ºC)
ESR ≥ 60 mm/h and/or CRP ≥ 3.0 mg/dl	ESR ≥ 30 mm/h and/or CRP ≥ 3.0 mg/dl
Prolonged PR interval (after taking into account the differences related to age; if there is no carditis as a major criterion)	Prolonged PR interval (after taking into account the differences related to age; if there is no carditis as a major criterion)

Figure 3: Revised 2015 Jones Criteria

Discussion

Diagnosis of ARF is difficult for several reasons, including rarity of the disease in developed countries, vague presentations, and provider awareness. Although ARF occurs primarily in less developed countries, cases can occur in the United States. We present a case in which our patient was unable to seek medical care due to insurance difficulties, making him especially susceptible to sequalae of a recent *streptococcus pyogenes* infection. Identification of this disease was realized largely due to thorough history during the initial patient interview.

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