**RARE ONSET OF ACUTE RHEUMATIC CARDITIS POST TREATMENT OF STREPTOCOCCAL PHARYNGITIS**

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**Introduction**: Rheumatic heart disease remains a leading and preventable cause of cardiovascular illness worldwide. Though incidence has decreased in developed nations, sporadic cases still occur. We present a case of acute rheumatic fever (ARF) in a young adult following treatment for streptococcal pharyngitis.

**Case:** A 26year-old man with no previous medical history was transferred to our institution for evaluation of myopericarditis. One week prior, he was treated for group A streptococcal (GAS) pharyngitis with intramuscular (IM) benzathine penicillin. He reported transient polyarthralgias and low-grade fever preceding his sore throat. A week after receiving antibiotics he presented to the same hospital with two days of intermittent chest pain and shortness of breath. Initial work up included a normal chest x-ray, negative D-dimer, troponin 2.1ng/mL and an EKG consistent with pericarditis. Treatment with colchicine and ibuprofen was started. He continued to have intermittent chest pain with troponin rising to 10.8ng/mL, and he was transferred to our institution for management. On arrival, he had a temperature of 100° F, troponin 17ng/mL, ESR 43mm/hr, and CRP 8.6mg/dL. Further testing revealed a positive streptococcal antigen test, leukocytosis, and elevated ASO and DNAase B antibodies. A transthoracic echocardiogram revealed left ventricular ejection fraction (LVEF) of 55% and no regional wall motion abnormalities. A cardiac MRI revealed a delayed hyperenhancement pattern consistent with acute myocarditis and LVEF of 53%. Based on revised Jones criteria (major criterion: carditis following GAS infection; minor criteria: polyarthralgias, CRP >3.0mg/dL) the patient was diagnosed with ARF. He was initiated on secondary rheumatic fever prophylaxis with IM benzathine penicillin.

**Discussion**: Cardiac involvement is one of the most serious complications of rheumatic fever, initially presenting as a pancarditis and progressing to chronic rheumatic valvular disease in a subset of patients. Early recognition and appropriate treatment of GAS pharyngitis prevents most cases of rheumatic fever and cardiac involvement, though ARF may rarely occur even after antibiotic treatment.