Diffuse ST elevation myopericarditis in Leptospirosis: A Case Report

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Introduction: Leptospirosis is a complex zoonotic disease caused by spirochetes from the genus Leptospira commonly encountered in tropical and subtropical countries. Cardiac involvement is a common but underreported manifestation of leptospirosis. Common ECG changes involve atrial fibrillation, nonspecific ST-T wave changes, and conduction delays.

Methods: Case Report

Result: A previously well 32-year old male from the Philippines was admitted at a tertiary care hospital with a one-week history of generalized myalgia, fever, chills, and severe retrosternal chest pain. He was hypotensive, diaphoretic, jaundiced, with conjunctival suffusion and bibasal crackles. Initial 12LECG revealed ST elevation in leads V1, V2, and V3 after one hour showing resolution of ST elevation with early repolarization phenomenon. Patient was later noted to have recurrence of ST elevation now diffusely noted in leads II, III, aVF, V3, V4, and V5. Laboratory examinations revealed elevated troponin I, CKMB, and CK-total, azotemia, and normal hepatic enzymes. Leptospirosis micro agglutination test (MAT) was positive up to the 1:1600 dilution. Patient was immediately started on intravenous Ceftriaxone 2 grams every 24 hours. By the third hospital day, patient was clinically improved with no recurrence of chest pain and resolution of hypotension. 12LECG now revealed normal sinus rhythm and labs revealed resolution of azotemia as well. He was discharged fully recovered on the seventh hospital day.

Conclusion: Diffuse ST segment elevation is a rare cardiac manifestation in patients with leptospirosis. Limited studies have documented this phenomenon worldwide. This is the first report in the Philippines detailing such presentation.