

# Lyme carditis presenting as atrial fibrillation treated successfully

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A [case study published in the \*British Medical Journal\*](#) features a 23-year-old man with a history of degenerative joint disease who presented with a sudden onset of palpitations. [2] His echocardiogram (ECG) revealed atrial fibrillation (AF) with a mildly dilated left Atrium.

The patient did not recall a tick bite or a rash. And, “Although Lyme carditis was on the differential diagnoses list, it was not considered high enough due to the initial rhythm being AF and not [atrioventricular ] AV block,” writes Shabbir and colleagues.

The man was treated with metoprolol and released from the hospital after his heart spontaneously reverted back to normal sinus rhythm.

However, 4 days later the patient returned to the hospital.

“ECG now exhibited atrioventricular (AV) mobitz-II block alternating with intermittent [complete heart block \(CHB\)](#) on telemetry confirmed with ECG,” writes Shabbir.

He was tested for Lyme disease and treated empirically with intravenous ceftriaxone. Within 48 hours, his symptoms began to improve.

Lyme disease tests came back positive. And 1 month later, after antibiotic therapy, his heart rhythm had returned to normal.

## The authors' key learning points include:

1. Consider the unusual initial presentation of Lyme disease as atrial fibrillation.
2. Keeping Lyme carditis in the differential diagnoses when someone from a Lyme-endemic area presents as supraventricular arrhythmia (atrial fibrillation/flutter).
3. Initiating appropriate antibiotic therapy empirically without waiting for the Lyme serologies if the clinical suspicion is high.

## Related Articles:

[5 things to know about Lyme carditis](#)

[When Lyme disease mimics a heart attack](#)

[Growing list of cardiac problems in Lyme disease](#)

**References:**

1. T. Kosti?, S. Mom?ilovi?, Z. D. Periši? et al., “Manifestations of Lyme carditis,” International Journal of Cardiology, vol. 232, pp. 24–32, 2017.
2. Shabbir MA, Saad Shaukat MH, Arshad MH, Sacco J. Lyme carditis presenting as atrial fibrillation in a healthy young male. BMJ Case Rep. 2019;12(6).

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