

## Can anaplasmosis cause heart problems?

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In their article, [“Case report: human granulocytic anaplasmosis causes acute myopericarditis with atrial fibrillation.”](#) Levy et al. describe the case of a 65-year-old man who presented to the emergency room with fever and malaise, which had persisted for one week.<sup>1</sup> An electrocardiogram showed new atrial fibrillation and conduction abnormalities.

The man resides in a suburb of Boston in a home surrounded by wooded areas. “He reported being outdoors regularly for kayaking trips in the few months prior to presentation,” the authors wrote.

“Anaplasma serologies were positive for IgM and negative for IgG, and subsequent PCR detected anaplasma phagocytophilum DNA,” the author wrote. “CMR imaging revealed findings consistent with myopericarditis.”

According to the authors, the man had “an isolated HGA infection, and cardiac workup showed evidence of myopericarditis as well as conduction system disease.”

**Conduction and rhythm abnormalities are frequently associated with Lyme disease but have not been previously reported with [anaplasmosis] HGA.**

“This case highlights that conduction and rhythm disturbance can be a feature of myocarditis in the setting of isolated [anaplasmosis] HGA infection,” the authors wrote.

“In our patient HGA was the sole identifiable culprit,” the authors point out. “This is an uncommon finding; isolated HGA myocarditis or myopericarditis has been reported only once previously.”

### **The authors conclude:**

- “myopericarditis and serious haemodynamic compromise are potential severe complications of HGA infection, without the need for a concomitant Lyme infection.
- “anaplasma phagocytophilum infection, in the absence of any concomitant Lyme disease, can cause acute myopericarditis”
- “HGA myopericarditis can present with electrical disturbances including atrial fibrillation and conduction system disease.”

It is important to include anaplasmosis in patients presenting with clinical symptoms consistent with myopericarditis and continuing doxycycline treatment until both Lyme disease and HGA are ruled out, the authors explained. This is particularly relevant to those patients living in endemic regions who present with symptoms during the late Spring through early Fall.

### **Related Articles:**

[Babesia and anaplasmosis in a child with B cell acute lymphoblastic leukemia](#)

[Anaplasmosis leading to neurological symptoms of trigeminal neuralgia](#)

[Podcast: Anaplasmosis in the brain](#)

**References:**

1. Levy AM, Martin LM, Krakower DS, Grandin EW. Case report: human granulocytic anaplasmosis causes acute myopericarditis with atrial fibrillation. *Eur Heart J Case Rep.* 2023 Jan 17;7(1):ytad026. doi: 10.1093/ehjcr/ytad026. PMID: 36727140; PMCID: PMC9883714.

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