

[LETTERS TO THE EDITOR]

Endocarditis Caused by Zoonotic Pathogens and Antiphospholipid Syndrome Are Possible Differential Diagnoses

Key words: nonbacterial thrombotic endocarditis, culturenegative endocarditis, *Bartonella* species, *Coxiella burnetii*, lupus anticoagulanthypoprothrombinemia syndrome

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To the Editor We read the article entitled, "Treatment with a Direct Oral Anticoagulant for Nonbacterial Thrombotic Endocarditis" by Tamura Y et al. in Internal Medicine (1) with great interest. The clinical team, including the authors, carefully assessed, treated, and described this extremely challenging case of nonbacterial thrombotic endocarditis (NBTE). The absence of changes on chest CT imaging for four years made it very difficult to make a correct diagnosis while she was alive. The authors obviously contributed to describing the pathogenesis of this rare disease: NBTE. However, three major questions should be addressed in relation to this patient's clinical course.

As the US guidelines suggest, negative results from repeated blood cultures raise the possibility of uncommon or rare pathogens, including - but not limited to - *Bartonella* species, *Coxiella burnetii*, and *Brucella* species (2). The first question we would like to address is whether the patient was exposed to animals, such as domestic cats, or dairy activity (even though such zoonoses are very rare in Japan) (3, 4)?

Furthermore, anti-phospholipid antibody syndrome may mimic endocarditis (2). Although this patient's antinuclear antibody (ANA) test was negative (1), not only systemic lupus erythematosus (SLE) but also malignancies or viral infection may cause lupus anticoagulant-hypoprothrombinemia syndrome (LAHPS) (5). The second question is whether anticardiolipin antibodies, anti- β 2-glycoprotein I antibodies, and lupus anticoagulant tests showed negative results or not?

Finally, this patient died from a sudden cerebral hemorrhage (1). The third question, which is closely related to the previous two questions, is whether an autopsy revealed a cerebral aneurysm, which would strongly suggest bacterial endocarditis, or spontaneous bleeding, which would suggest LAHPS?

The authors state that they have no Conflict of Interest (COI).

Takahiko Fukuchi and Hitoshi Sugawara

References

- Tamura Y, Sakata K, Terada K, et al. Treatment with a direct oral anticoagulant for nonbacterial thrombotic endocarditis. Intern Med 60: 1881-1885, 2021.
- Baddour LM, Wilson WR, Bayer AS, et al. Infective endocarditis in adults: diagnosis, antimicrobial therapy, and management of complications: a scientific statement for healthcare professionals from the American Heart Association. Circulation 132: 1435-1486, 2015.
- Ebato M. Bartonella species: important cause of culture-negative endocarditis. J Cardiol Cases 13: 4-5, 2015.
- Porter SR, Czaplicki G, Mainil J, et al. Q fever in Japan: an update review. Vet Microbiol 149: 298-306, 2011.
- Koyama D, Hanajiri R, Kanematsu T, et al. [Lupus anticoagulanthypoprothrombinemia syndrome associated with follicular lymphoma]. Rinsho Ketsueki 61: 745-749, 2020 (in Japanese).

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