

Thank you for your suggestions on revising the article. My response is as follows:

1. Expand Echo to trans thoracic Echo in the imaging section

Echo has been expanded to trans thoracic Echo in the imaging section. Figure 1 Bedside trans thoracic echocardiogram. A: Bedside trans thoracic echocardiogram shows vegetations (arrow) attached to the mitral valve (Long-axis cardiac section). B: Bedside trans thoracic echocardiogram shows vegetations (arrow) attached to the mitral valve (Four-chamber cardiac section).

2. Describe how many blood cultures were obtained and how many of them were positive

2 tubes of blood were obtained for pre-operative blood cultures , suggesting *L. adecarboxylata* infection. Then, blood cultures were performed on the first, second, third, fifth and seventh postoperative days respectively (2 tubes of blood per day). Blood cultures were positive on the first three days after surgery, and negative on the fifth and seventh postoperative days.

3. Mention which all criteria's of modified duke were met

The patient's IE diagnosis was based on the two main criteria (echocardiography finding vegetations in the anterior lobe of the mitral valve, and blood and vegetation culture showing *L. adecarboxylata* infection) and three minor criteria (history of mitral stenosis, fever of 38.6°C and embolic infarction) of modified duke criteria.

4. The discussion is extensive, unless the journal recommends the same the authors can remove redundant discussion and focus on the *L. adecarboxylata* endocarditis.

The redundant discussion has been removed.

5. PMID: 33190470, refer and cite about the risk factors and outcome in GN IE.

Gram-positive bacteria account for more than 70% of IE cases, and are the main pathogen of community-acquired and hospital-acquired IE cases^[52]. Gram negative bacteria usually do not cause IE^[53]. Gram-negative IE accounts for less than 5% of IE^[54]. In the past 50 years, the incidence rate of gram-negative endocarditis has been increasing^[55, 56]. In addition to the traditional risk factors of structural heart disease (congenital or acquired)^[57, 58], most gram-negative endocarditis is mainly caused by medical related events^[59]. Patients with indwelling catheters, invasive lines, and intracardiac devices are at higher risk^[60, 61].

Among patients with gram-negative endocarditis, 60% had renal insufficiency^[17], and about 52% had embolic symptoms^[60]. Embolic symptoms can be divided into the presence or absence of central nervous system involvement, including neurological complications such as stroke or transient ischemic attack, and other complications such as metastatic infection, mesenteric ischemia and peripheral terminal artery occlusion^[41, 62]. A large prospective study found that the incidence of new murmurs was 48% ~ 60%, and 30% ~ 40% of patients lost weight^[17, 59]. Studies have reported that about 11% ~ 33% of patients have splenomegaly^[59, 63].

[59] **Thomas VV**, Mishra AK, Jasmine S, Sathyendra S. Gram-negative infective endocarditis: a retrospective analysis of 10 years data on clinical spectrum, risk factor and outcome [J]. *Monaldi Arch Chest Dis*. 2020 Nov 13;90(4). [PMID: 33190470 DOI: 10.4081/monaldi.2020.1359]