Reviewer's report

Title: Infectious endocarditis caused by Helcococcus kunzii in a vascular patient: a case report and literature review

Version: 5  Date: 22 March 2015

Reviewer: Siddharth Sridhar

Reviewer's report:

This report adds to the evolving understanding of the role of H kunzii in human disease. However, certain revisions are recommended.

Major Compulsory Revisions:

1. The patient had an abdominal aortic aneurysm with stenting performed. Was there any evidence of an infected aortic vascular graft during this episode? This might have served as an endovascular focus of infection that subsequently seeded the heart valve. Note that H kunzii has been documented to cause intravascular prosthesis infections. (McNicholas S et al)

2. Please give the indication for the heart valve replacement in this patient.

3. Pg 6, Line 155: In fact, the patient only met ONE major criterion of the modified Duke’s criteria, which is evidence of endocardial involvement supported by new valvular regurgitation murmur and echocardiogram findings. On the other hand, as he had fever, he had THREE minor criteria. Therefore, he fulfilled the clinical criteria for IE by having 1 major and 3 minor criteria. Please revise.

4. In table 2, include the case of brain abscess due to H kunzii by Sridhar S et al, J Clin Microbiol, 2014

5. The finding of reduced susceptibility to gentamicin is important as gentamicin is frequently prescribed in combination with beta-lactams for empirical coverage of infective endocarditis. Authors should include this point in the discussion and discuss their opinion on optimal antimicrobial regimen for H kunzii infective endocarditis based on the sensitivity results of their isolate and other isolates in the medical literature. Reduced susceptibility of H kunzii to aminoglycosides has also been previously demonstrated by Sridhar S et al.

Minor Essential Revisions

1. Spelling error of "cefotaxime" in Table 1

Discretionary Revisions

1. Please consider an alternative for the term "polyvascular patient" in the background and conclusion such as "patient with polyvascular disease"
2. Provide details of the valve histology, if available to enrich the report further.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests