Reviewer's report

Title: Streptococcus intermedius: molecular identification and typing of isolates from a spectrum of clinical cases.

Version: 1 Date: 12 September 2007

Reviewer: Leo M Schouls

Reviewer's report:

General
This study describes the identification of Streptococcus intermedius in 3 cases of invasive streptococcal disease. Infections apparently led to liver and brain abscesses and to endocarditis which is an unusual complication of the disease. Using molecular analysis the authors were able to identify the viridans streptococci grown from blood cultures and aspirates as S. intermedius.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The title of the manuscript is somewhat audacious. It suggests extensive molecular analysis a spectrum of clinical cases. However, no molecular data is presented and the authors only mention the results on page 7. With only 3 cases the spectrum of disease also is quite limited. Please change the title into a more fitting one.

2. The authors do not describe how the 16S-gene sequence was determined. What kind of primer set was used for PCR and what part of the 16S rRNA gene was sequenced? No extensive description is required, but the size and location of the analyzed product is important to assess the validity of the molecular identification.

3. The authors have used RAPD profiles to assess a possible epidemiological link. The patterns obtained are not shown, but apparently they were similar yet distinct. Based on this result the authors conclude that the cases were unlinked. RAPD is not a reliable genotyping technique, the method is not robust. How can the authors exclude differences in the profiles due to experimental difficulties? How was the method validated?

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. There are some typos and small errors in the text. An example on page 4: “Cultures of the aspirate also grew a viridans group streptococci”. Streptococci is plural so it should read “Cultures of the aspirate also grew viridans group streptococci”
2. The titles and legends of the figures are not very clear. For instance the title of Figure 3 now is “Brain tissue” and the legend “A gram stain of the brain tissue showing gram positive cocci in chains”. It would be more appropriate to use the title “Gram stain of brain tissue from case 3 showing Gram positive cocci in chains”. No further legend is required.

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Acceptable

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