Reviewer's report

Title: Prevalence, Virulence Factors and Antimicrobial Susceptibility of Enterococcus faecalis Isolates from Patients with Dental Diseases

Version: 1 Date: 20 December 2007

Reviewer: Marcello Riggio

Reviewer's report:

The study by Salah et al. aims to investigate the prevalence of Enterococcus faecalis in oral rinses from subjects with (109) and without (50) dental disease using microbiological culture. The virulence factors associated with the isolates obtained were determined and antimicrobial susceptibility testing was carried out. The authors only isolated E. faecalis from patients with dental disease (8). All 8 isolates carried both the ace and efaA virulence genes, 2 isolates carried the cylA virulence gene and the esp virulence gene was not found in any isolates. Most isolates were susceptible to the panel of antimicrobial agents tested, although only five isolates were susceptible to erythromycin and one isolate to imipenem.

I have several criticisms of the manuscript:

1. The study is not novel, since other studies have previously investigated both antimicrobial resistance (Reyaud et al, 2006) and virulence determinant distribution (Reyaud et al, 2007) in E. faecalis isolates. However, it is nevertheless useful to look at these factors in different geographic populations.
2. The major criticism is that the number of isolates analysed (8) is very low. One cannot draw meaningful conclusions from such a small number. The analyses should be extended to include a much larger number of E. faecalis isolates.
3. The data presented in Table 5 on antimicrobial susceptibilities should be expanded to relate this to the presence or absence of virulence genes (as shown in Table 4).
4. E. faecalis should also be detected by direct PCR on the oral rinse samples, and the prevalence compared with the microbiological culture method used.
5. The manuscript requires extensive alterations to the language and presentation.

I cannot recommend publication of the manuscript in its present form.

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: Needs some language corrections before being published

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