Reviewer’s report

Title: A molecular survey of S. mutans and P. gingivalis oral microbial burden in human saliva using RE-PCR within the minority population of a Nevada dental school.

Version: 3 Date: 4 April 2012

Reviewer: Binnaz Leblebicioglu

Reviewer’s report:

The purpose of this study was to screen adult patients who are interested in orthodontic treatment for the presence/absence of two types of oral putative pathogen—one specific for carries and other one specific for periodontal disease. Authors hypothesized that they can differentiate their study group based on gender and ethnicity for salivary presence of specific pathogen. Stimulated saliva was collected and bacterial DNA was extracted. Presence of specific bacteria was studied by using relative endpoint polymerase chain reaction. Subjects were divided into subgroups based on high/moderate/low expression (density of band on gel). They concluded that P. gingivalis as putative periodontal pathogen was highly expressed among minority patients. Similar result could not be detected for S. mutans.

Specific questions to answer:
- Inclusion/exclusion criteria... Were these subjects already in orthodontic treatment? or were they screened for orthodontic treatment?
- Why stimulated saliva?
- No information is given on patients’ oral/periodontal health conditions. This should be included.
- Any smokers within this study group....Any systemic health issues that may affect oral/periodontal health?
- What was the reason for RE-PCR instead of regular PCR or RT-PCR? Also what was the reason to create a standard by using human gingival fibroblast? I understand that this is necessary for RE-PCR but if the goal is to create a simple bacterial screening tool, RT-PCR should be sufficient to detect very small amount.
- Result of this study is not very surprising since higher risk of chronic and aggressive periodontitis in african americans is well documented. So the significance of this study should be discussed better,

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests