Reviewer's report

Title: Statin using periodontitis patients have markedly fewer periodontal lesions - a cross-sectional study

Version: 2 Date: 27 January 2008

Reviewer: Girdhar Agarwal

Reviewer's report:

Referee's Report on Paper “Statin use is associated with fewer periodontal lesions, a cross-sectional study” by Otso Lindy et al

The present study examines the effect of statin on clinical markers of chronic periodontitis.

1. There is a measure flaw in the design of the present study. This is an observational retrospective study.

2. This should be planned as a case-control study with the “case” as person using statin and “control” as person not using statin.

3. As a technique to control confounding factors, individual cases should be matched, possibly one-to-one, to set of controls chosen to have similar values for the important confounding variables.

4. The possible confounding variables are age, sex, diabetes, smoking etc.

5. The distribution of subjects among statin users and non-users is very uneven as is clear from following ;

Statin user statin non-user

n = 21 n =76

diabetes (28.6%) diabetes (3.9%)

smoker (28.6%) smoker (18.4%)

Therefore, unless proper matched pair analysis shall be used, the results will be biased.

6. The observations are count data, so t-test would not be proper test for analysis

7. Table 2 is very confusing.

8. Table 3 is not required. The result of this table can be stated in the form of fitted regression model.

9. Moreover, from an observational study, the conclusive inferences can not be drawn.
In view of the above comments, the paper is not appropriate for publication in the journal.

**What next?**: Reject because scientifically unsound

**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.