Author’s response to reviews

Title: C-reactive Protein levels are lowered by treatment of periodontitis

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PDF covering letter
Dear Sirs,

we have enclosed our manuscript "C-Reactive Protein levels are lowered by treatment of periodontitis" to be considered for publication BMC Infectious Diseases.

Several studies have suggested that certain low-grade infections, like those caused by *Chlamydia pneumoniae* or cytomegalovirus, are risk factors for coronary heart disease. Periodontitis belongs to this group of infections as well and periodontal pathogens have been found in human atherosclerotic plaques. These observations have made periodontitis an area of interest - not only for dentists - but also for infectious diseases specialists and cardiologists. New, sensitive C-Reactive Protein (CRP) assays are able to detect "microelevations" of CRP levels and elevated CRP levels have been shown to be a strong, independent predictor of coronary heart disease risk. Recently some studies have suggested that the combination of chronic infection and elevated CRP levels carry particularly high coronary risk, supporting the view that infections may be coronary risk factors only in some "susceptible" individuals, who react to these infections with a systemic inflammatory reaction. This could explain why contrasting results have recently been obtained in studies investigating the role of infections as coronary risk factors – some of these studies may have included more "susceptible" individuals than others. Knowing whether this really is the case and whether the elevated CRP levels can be lowered by treating these infections are now the key questions and the studied published so far have given conflicting results.
We studied the effect of periodontal treatment on CRP levels in individuals with periodontitis. To our knowledge, the study is the first to show that CRP levels can be lowered by treating periodontitis. It also suggests that the periodontitis patients with elevated CRP levels are not necessarily the ones with most severe disease, which is compatible with the view that other factors influence the degree systemic inflammation evoked by periodontitis.

This topic is difficult to study. The definitions and treatments of periodontitis have to be applied for all patients enrolled. It took us four years to collect and study even the 30 completers that we have in the study. We understand that this small sample size raise the possibility of a chance finding and this is also stated in the manuscript. We believe that these results merit attention and we hope that you will find our manuscript acceptable for publication.

Potential reviewers: Dr Anja Ainamo (anja.ainamo@helsinki.fi), Dr Gunnar Dahlen (dahlen@odontologi.gu.se), Dr Denis Mayrand (denis.mayrand@bcm.ulaval.ca), Dr David Kinane (D.Kinane@dental.gla.ac.uk).

Sincerely yours

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