

**Re. A Prospective Study of Periodontal Disease and Pancreatic Cancer in US Male Health Professionals**

Akira Taguchi

**Affiliations of authors:** Department of Oral and Maxillofacial Radiology, Hiroshima University Hospital, Hiroshima, Japan

**Correspondence to:** Akira Taguchi, DDS, PhD, Department of Oral and Maxillofacial Radiology, Hiroshima University Hospital, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8553, Japan (e-mail: [akiro@hiroshima-u.ac.jp](mailto:akiro@hiroshima-u.ac.jp))

The recent article by Michaud et al. (1) reported a positive association between self-reported periodontal disease and risk of pancreatic cancer in a cohort of 51,529 predominantly white US men aged 40–75 years in the Health Professionals Follow-Up Study. With regard to a possible chronic infection-inflammation pathway, Dr. Joshipura, one of the co-authors, also demonstrated positive associations between periodontal disease and ischemic stroke (2) and peripheral arterial disease (3) in the same HPFS cohort. Because smoking is a major confounding variable that links periodontal disease and subsequent tooth loss (4) with indicators of general health, such as stroke, peripheral arterial disease, and pancreatic cancer, the authors strictly adjusted for cigarette smoking in addition to other possible confounding variables; however, they did not adjust for passive exposure to cigarette smoke. Gallicchio et al. (5) reported that passive exposure to cigarette smoke in the household was not associated with an increased risk of pancreatic cancer among never-smokers in two cohorts that were

established in Washington County, Maryland, noting that the confidence limits were wide due to a small number of cases (56 patients with pancreatic cancer in a cohort of 45,749 men and women and 92 in a cohort of 48,172 men and women). In that study the authors concluded that future investigations of the associations between passive exposure to cigarette smoke and risk of pancreatic cancer should incorporate a more comprehensive measure, which should include lifetime household, occupational, and leisure time exposures to secondhand smoke. Additional adjustment for complete passive smoking exposure might reduce or eliminate the association between self-reported periodontal disease and pancreatic cancer risk as well as other general health concerns.

Furthermore, it might be more helpful for the investigators to understand the periodontal disease–pancreatic cancer association if they can demonstrate the association between duration and grade of periodontal disease and risk of pancreatic cancer. Subjects with short-term mild periodontal disease might have lower risk of pancreatic cancer than those with long-term severe periodontal disease.

## References

1. Michaud DS, Joshipura K, Giovannucci E, Fuchs CS. A prospective study of periodontal disease and pancreatic cancer in US male health professionals. *J Natl Cancer Inst* 2007;99:171-5.
2. Joshipura KJ, Hung HC, Rimm EB, Willett WC, Ascherio A. Periodontal disease, tooth loss, and incidence of ischemic stroke. *Stroke* 2003;34:47-52.
3. Hung HC, Willett W, Merchant A, Rosner BA, Ascherio A, Joshipura KJ. Oral health and peripheral arterial disease. *Circulation* 2003;107:1152-7.

4. Krall EA, Dietrich T, Nunn ME, Garcia RI. Risk of tooth loss after cigarette smoking cessation. *Prev Chronic Dis* 2006;3:A115.
5. Gallicchio L, Kouzis A, Genkinger JM, Burke AE, Hoffman SC, Diener-West M, et al. Active cigarette smoking, household passive smoke exposure, and the risk of developing pancreatic cancer. *Prev Med* 2006;42:200-5.