

Can a Toothpaste Reduce Heart Attacks and Strokes?

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My father was a busy and successful dentist in New Haven, Connecticut. One of my earliest memories is of sitting in one of his dental chairs and having my teeth inspected and cleaned. Many years later when I was about to start medical school, my father told me that in his practice, patients with poor dental condition and poor mouth hygiene frequently had other serious medical conditions. Clearly, it appears that my father's comment was prescient!¹⁻⁷ A recent review revealed 468 articles published since 1991 involving the relationship between poor dental hygiene, such as periodontitis or missing teeth, and the presence of atherosclerosis often in the form of ischemic heart disease.

In the current issue of The American Journal of Medicine, the use of a plaque-identifying toothpaste produced statistically significant reductions in dental plaque and high-sensitivity C-reactive protein.⁸ Coronary heart disease events were not recorded because the number of patients was small and the treatment duration was 60 days. The authors reported that a plaque identifying toothpaste significantly reduced hs-CRP. This interesting study raises many new questions requiring the initiation of at least one large randomized double-blind trial to test whether this observed reduction in hs-CRP will result in fewer myocardial infarctions and strokes in a large sample with treatment and follow up of several years.

The relationship between inflammation and atherosclerosis is now well established, and poor oral hygiene is certainly an important potential site in the body for continuous inflammatory stimulation. If the use of a plaque-identifying toothpaste were shown to reduce coronary events, this would represent a simple, easily performed method for reducing the impact of coronary arterial atherosclerosis. I commend the investigators for seriously considering such a trial. The study design would be straightforward, as would be the determination of the cardiovascular outcomes. I for one hope that such a trial will confirm my father's clinical observations made many decades ago!!

As always, I welcome your questions and comments on The American Journal of Medicine blog at: <http://amjmed.org/>.

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