**Abstract**

**Objectives:** Good oral health affects general health by improving nutritional intake and reducing vascular inflammation associated with heart disease.

**Materials and Methods**

- Appended mortality data \( \rightarrow \) longitudinal follow-up study
- Ethical Committee of the Kuopio University Hospital approved cross-sectional study portion.
- Boston University IRB approved the longitudinal study portion.
- Baseline dental data: among 256 coronary artery disease [CAD] and 250 age- and sex-matched controls.
- Predictor: number of teeth (study 1) and dental prostheses as a measure of good oral repair (study 2)
- Outcome: 15-year cardiovascular and all-cause survival
- Competing factors adjusted: Age, sex and smoking, diabetes, hypertension, total/HDL cholesterol ratio and education

**Results**

**Graph 1. More remaining teeth. Better longevity**

- Kaplan-Meier curves for cumulative survival rates by the teeth groups

**Graph 2. Good oral Maintenance. Better longevity**

- Famous nonagenarians with good teeth and longevity

**Discussion**

- Mean age of our cohort at baseline: 60
- Finnish state-supported basic dental care \( \rightarrow \) better longevity
- Blood pressure medicines, cholesterol medicines all have side effects.
- Providing good oral health promotes better general health without side effects.
- When oral health is controlled, statin may not be necessary \( \rightarrow \) CVD was inversely associated with CVD mortality. Need further study to confirm this finding.

**Background**

- Healthy aging \( \rightarrow \) increases the productive time
- \( \rightarrow \) decreases the dependent time
- Two factors affect economics of aging:
  1. Health of seniors \( \rightarrow \) contributes to economics of society; playing golf or gifts to grand-children etc.
  2. Creative Public policy \( \rightarrow \) utilizes seniors’ contribution to the societal benefits
- Two factors (1 and 2) go hand in hand.
- Enhancing elders’ health and minimizing sickness \( \rightarrow \) less burden for society.
- Good oral health brings about good general health!! Small early investment in oral health \( \rightarrow \) large benefit return!!

**Statistical methods and Results**

- In a cohort with mean Age \( \approx 60 \)
- With high prevalence of CVD
- Bivariate analyses: T-tests, chi square test or median tests
- Multivariate analyses: Cox proportional hazard regression
- Systemic confounding factors such as age, sex and smoking, diabetes, hypertension, total/HDL cholesterol ratio and education adjusted.

**Results:**

- Previously we reported that oral health was associated with Diabetes, \( \rightarrow \) Hypertension, \( \rightarrow \) Coronary heart disease.
- Each increment of 10 remaining teeth at age 60 improved CVD survival by 27% in study 1 (graph 1).
- Persons who had average of 15.4 teeth with good oral repair had 25% improved longevity than those who had 22.5 teeth in study 2 (graph 2).
- The moral of these two studies \( \rightarrow \) having as many teeth (study 1) and keeping them in good repair (study 2) improve longevity.

**References**


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