

論文名 : Low Salivary IgA Levels against PAc(361–386) as a Risk Factor for Root Caries in Older Adults (要約)

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Despite the increase in life expectancy around the world, root caries remain a problem for older adults. Root surface caries occur even for those at low risk for enamel caries because the critical pH of the root surface dentin is higher compared with that of the enamel. Evaluating the risk of root caries and preventing them is essential, because they tend to be difficult to treat. To assess the risk factors for root caries, we determined the number of mutans streptococci (MS), one of the main causative bacteria for root caries, and the amount of salivary IgA antibody specific to *Streptococcus mutans* surface protein antigen, PAc, in older adults.

The participants in this study included 389 adults aged 76 years living in Niigata City in 2004. Dental examinations were conducted at baseline in 2004 and one year later, the total number of untreated and treated root caries was recorded as root DFT.

Stimulated saliva samples were collected to measure the MS number and salivary IgA antibody to amino acid residues 361–386 of *S. mutans* PAc [PAc(361–386)] in the baseline survey. To assess the risk of root caries development, logistic regression analysis was performed using salivary IgA antibody to PAc(361–386), gender, number of root exposed teeth, DFT (coronal and root surface), MS number (log CFU/swab), and salivary flow rate (ml/min) as explanatory variables.

Of the participants, 307 (163 males, 144 females) with exposed root surfaces and without missing data were included in the analysis. The mean root DFT at baseline was 3.77 (SD: 3.66) and 36.5% of the subjects exhibited increased root DFT after one year. Of the explanatory variables, only a low level of salivary IgA antibody to PAc(361–386) (≤ 25 th percentile) was significantly associated with increased root DFT (adjusted odds ratio: 1.88; 95% confidence interval: 1.09–3.25).

Low levels of salivary IgA antibody to PAc(361–386) is a risk factor for increased root caries in older adults.