

IADR GENERAL SESSION

VANCOUVER, BC, CANADA • JUNE 19-22, 2019
97TH GENERAL SESSION & EXHIBITION OF THE IADR
48TH ANNUAL MEETING OF THE AADR
43RD ANNUAL MEETING OF THE CADR

WELCOME

VISIT THE FOLLOWING ATTRACTIONS

IADR Unilever Hatton Posters
AADR Hatton Posters
IADR/AADR/CADR Scientific Networking Center
Exhibition Booths
e-Poster Discussion Presentations
Poster Presentations
SCADA Posters

EXHIBITION HALL HOURS

Thursday: 9 a.m. - 5 p.m.
Friday: 9 a.m. - 5 p.m.
Saturday: 9 a.m. - 5 p.m.

IADR/AADR/CADR SCIENTIFIC NETWORKING CENTER

Thursday: 8 a.m. - 5 p.m.
Friday: 8 a.m. - 5 p.m.
Saturday: 8 a.m. - 5 p.m.



Prevalence of Specific *Streptococcus mutans* strains in Non-alcoholic Steatohepatitis Patients

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Objectives

Non-alcoholic fatty liver disease (NAFLD), the most common form of chronic liver disease, is associated with metabolic syndrome. It is a risk factor for cardiovascular disease. Recently, it has been suggested that *S. mutans* may be a major pathogen of dental caries. One of the causes of infectious endocarditis.

Streptococcus mutans



Gram-positive facultative anaerobic bacterium known to be a major pathogen of dental caries. One of the causes of infectious endocarditis.

Streptococcus mutans TWB71 strain

Isolated from blood of infectious endocarditis patient complicated with subarachnoid hemorrhage. (Phenotypic both subgroups lacking protein (Crim) and protein antigen (PA) on the bacterial cell surface).



Purpose of study

To investigate the prevalence of *S. mutans* strains in NAFLD patients, we examined the presence of Crim- and PA-positive *S. mutans* strains in NAFLD patients.

Patients were recruited from the clinic (Department of Pediatric Dentistry, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Japan).

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Results

Comparison of *S. mutans* detection rates in NAFLD patients



There was no significant difference between NAFLD and Non-NAFLD patients for detection rate of *S. mutans*.

Comparison of *S. mutans* numbers in NAFLD patients



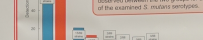
The numbers of *S. mutans* in saliva samples from NAFLD patients were significantly higher than in those from Non-NAFLD patients.

Prevalence of Crim- and PA-positive *S. mutans* strains in NAFLD patients



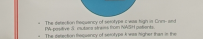
Crim- and PA-positive *S. mutans* strains were significantly more prevalent in the NAFLD patients.

S. mutans serotype in NAFLD patients



There were no significant differences observed between the two groups for any of the examined *S. mutans* serotypes.

Crim- and PA-positive *S. mutans* serotype in NAFLD patients



The detection frequency of serotype 1 was high in Crim- and PA-positive *S. mutans* strains from NAFLD patients.

The detection frequency of serotype 1 was higher than in the Non-NAFLD patients.

Serotype 1 was not found among Non-NAFLD patients.

These results suggest that specific *S. mutans* strains (serotype 1, Crim- and PA-positive strains) are associated with the pathogenesis of NAFLD.

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