

# Association between periodontitis and fibrotic progression of non-alcoholic fatty liver among Japanese adults

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論 文 名	Association between periodontitis and fibrotic progression of non-alcoholic fatty liver among Japanese adults (日本の成人における非アルコール性脂肪肝疾患患者の線維化と歯周病との関係)			
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### 論 文 審 査 の 結 果 の 要 旨

Non-alcoholic fatty liver (NAFL) is known to develop into liver fibrosis, which increases the risk of liver cirrhosis and liver cancer. The association between periodontal condition and fibrotic progression of NAFL is unclear. This study aimed to clarify this longitudinal association. Among 4,812 participants aged 35–64 years undergoing annual health check-ups between 2003 and 2004, and follow-up 5 years later, 392 participants were diagnosed with NAFL. After excluding participants with liver fibrosis at baseline, 341 participants were followed up for five years. Non-alcoholic fatty liver disease fibrosis score of  $\geq -1.455$  was used to evaluate the probability of the presence of liver fibrosis. During the follow-up period, 10.6% of participants progressed to liver fibrosis. A higher clinical attachment level (CAL) was significantly associated with the incidence of liver fibrosis in the logistic regression analysis (odds ratio [OR] 1.97, 95% confidence interval [CI], 1.08–3.60). The stratified analysis by obesity revealed a significant association with higher CAL in obese participants (OR 2.99, 95% CI, 1.35–6.62), but not in non-obese participants. Higher CAL was associated with an increased probability of liver fibrosis in obese adults with NAFL. This research contains novel findings, and thus, the paper was deemed worthy as a thesis paper. This research contains novel findings, and thus, the paper deserves a Doctor of Philosophy (Dental Science) degree conferment.