

# Cnm

Strains of [Streptococcus mutans](#) expressing the [cell surface collagen-binding protein](#), Cnm, encoded by *cnm* (*cnm*-positive *S. mutans*), are associated with [hypertensive intracerebral hemorrhage](#) (ICH) and the occurrence of cerebral [microbleeds](#) (CMBs). Small [diffusion-weighted imaging](#) (DWI) hyperintensities in patients with acute ICH are also associated with CMBs. However, the association between *cnm*-positive *S. mutans* and DWI hyperintensities is unclear. Hence, a study of Shiga et al. aimed to investigate the association between *cnm*-positive *S. mutans* and DWI hyperintensities in patients with acute ICH.

Patients with acute ICH were prospectively registered at three hospitals. [Dental plaque](#) specimens were collected within 4 days after admission, and *cnm*-positive *S. mutans* was detected using the [polymerase chain reaction](#). Magnetic resonance imaging at  $14 \pm 5$  days after admission was used to evaluate [DWI](#) hyperintensities and CMBs.

A total of 197 patients were enrolled in this study. *cnm*-positive *S. mutans* was detected in 30 patients (15.2%), and DWI hyperintensities were observed in 56 patients (28.4%). Patients with *cnm*-positive *S. mutans* had a higher frequency of DWI hyperintensities (50.0% vs. 24.6%;  $P = 0.008$ ) and a higher number of CMBs (5.5 vs. 1.5;  $P < 0.001$ ) than those without *cnm*-positive *S. mutans*. The multivariable logistic analysis revealed that the presence of *cnm*-positive *S. mutans* was independently associated with DWI hyperintensities (odds ratio, 2.38; 95% confidence interval, 1.01-5.61;  $P = 0.047$ ) after adjusting for several confounding factors.

This study found an association between the presence of *cnm*-positive [Streptococcus mutans](#) and [DWI](#) hyperintensities in patients with [acute intracerebral hemorrhage](#) <sup>1)</sup>

<sup>1)</sup>

Shiga Y, Aoki S, Hosomi N, Nomura R, Nakamori M, Nezu T, Tachiyama K, Kamimura T, Kinoshita N, Shimomura R, Hayashi Y, Matsushima H, Imamura E, Ueno H, Wakabayashi S, Nakano K, Kohriyama T, Maruyama H. *Cnm*-positive *Streptococcus mutans* and diffusion-weighted imaging hyperintensities in acute intracerebral hemorrhage. *Eur J Neurol*. 2021 Jan 11. doi: 10.1111/ene.14725. Epub ahead of print. PMID: 33426742.

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