

Original

## Prevalence of Tongue Cleaning Habit and Related Factors in Healthy Individuals in Iwate Prefecture, Japan

Mitsuo KISHI<sup>1)</sup>, Tazuko NAMIOKA<sup>2)</sup>, Natsuko ONODERA<sup>2)</sup>, Fumie AIZAWA<sup>1)</sup>,  
Mariko SEKINE<sup>2)</sup> and Masami YONEMITSU<sup>1)</sup>

**Abstract:** Objectives: The tongue surface is a major habitat of oral bacteria and tongue cleaning has been proposed to be useful for maintaining oral health; however, the prevalence of a tongue cleaning habit (TCH) and its manner of use in individuals is unclear. Herein, we investigated the prevalence of TCH in healthy individuals in Iwate prefecture, Japan.

Methods: We distributed a questionnaire to healthy individuals concerning tongue cleaning (having a cleaning habit, frequency of tongue cleaning, time devoted to cleaning, tools used, cue to start habit, and other related issues) in three different survey areas in Iwate prefecture. The responses were summarized and analyzed without personal identification.

Results: A total of 479 individuals anonymously completed the questionnaires (recovery rate, 67.2%). Thirty-seven percent of the respondents had a current TCH, among whom 66.7% cleaned their tongue daily (24.6% of all respondents). An ordinary toothbrush was the most frequently used tool, while special tools for tongue cleaning, i.e., tongue brush or tongue scraper, were rarely utilized. In addition, the time spent for tongue cleaning was commonly 10 to 20 seconds once a day. There were differences in the prevalence of TCH among the survey areas. Subjects in the area with the highest percentage of a TCH also most frequently reported receiving instructions for tongue cleaning from dental professionals. In addition, having a TCH was significantly associated with such an experience in that area. On the other hand, individuals in all areas with a TCH started the habit based on commercial information more frequently than by recommendations from a dental professional.

Conclusions: As compared with toothbrushing, tongue cleaning was a minor oral health behavior in our subjects, especially with specific tools. To increase the contributions of dental professionals to encouraging tongue cleaning, evidence-based consensus among dental professionals is considered to be necessary.

**Key words:** Tongue, Tongue cleaning, Health behavior, Questionnaires, Oral hygiene