

## Effects of oral care with tongue cleaning on coughing ability in geriatric care facilities: a randomised controlled trial

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論 文 名	Effects of oral care with tongue cleaning on coughing ability in geriatric care facilities: a randomised controlled trial (舌清掃を加えた口腔ケアが咳嗽能力に与える影響の検討: 無作為化比較試験)			
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### 論 文 審 査 の 結 果 の 要 旨

**Background:** Methods for preventing aspiration pneumonia are presently required in order to reduce mortality from aspiration pneumonia and promote the health of the elderly.

**Objective:** The aim of this randomized controlled trial was to examine whether oral care with tongue cleaning improves coughing ability in elderly individuals living in geriatric care facilities.

**Methods:** Participants comprised of 114 residents of 11 group homes and private nursing homes in Aso city in Kumamoto prefecture. Participants were randomly assigned to either (i) a group that received routine oral care with tongue cleaning (intervention group; n = 58) or (ii) a group that received routine oral care alone (control group; n = 56). Coughing ability was evaluated by measuring peak expiratory flow (PEF) before and after 4 weeks of intervention.

**Results:** Before the intervention, PEF did not differ significantly between the intervention group ( $1.65 \pm 1.11$  L/s) and control group ( $1.59 \pm 1.05$  L/s;  $P = 0.658$ ). However, on termination of the intervention, PEF was significantly higher in the intervention group ( $2.54 \pm 1.42$  L/s) than in the control group ( $1.90 \pm 1.20$  L/s;  $P = 0.014$ ). After the intervention, PEF had increased significantly in both groups; however, this increase was significantly greater in the intervention group ( $0.90 \pm 0.95$  L/s) than in the control group ( $0.31 \pm 0.99$  L/s;  $P < 0.001$ ).

**Conclusions:** Oral care with tongue cleaning led to increased PEF, suggesting improved coughing ability. Oral care incorporating tongue cleaning was thus suggested to be important for preventing aspiration pneumonia.

以上の内容をもって、本論文は地域高齢者に対する舌清掃を加えた口腔ケアの呼吸機能改善効果に関する新知見を呈している。従って、博士（歯学）の学位授与に値する。