Relationships of Variations in the Tongue Microbiota and Pneumonia Mortality in Nursing Home Residents

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論　文　名	Relationships of Variations in the Tongue Microbiota and Pneumonia Mortality in Nursing Home Residents （施設入所高齢者における舌苔マイクロバイオームと肺炎死亡の関連）
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論 文 審 査 の 結 果 の 要 旨

Aspiration of oral debris, containing dense oral bacteria, is a major cause of pneumonia in elderly adults. This study investigated the relationship between tongue microbiota composition and incidence of pneumonia-related deaths, in nursing home residents. The subjects were assessed for health conditions, including their tongue microbiota, at baseline. We determined tongue microbiota profiles by 16S ribosomal RNA gene sequencing and clustering approach. All subjects (n = 173) were followed prospectively for a median of 19 months to assess the incidence of all-cause death, including pneumonia-related death. We evaluated risk estimates of microbiota effects on death using multivariate Cox proportional hazards regression analysis. Tongue microbiota were classified into two community types: type I was dominated by *Prevotella* and *Veillonella* species, while type II was dominated by *Neisseria* and *Fusobacterium* species. The subjects with type I microbiota exhibited a significantly greater risk of all-cause death (adjusted hazard ratio [aHR] = 3.79, 95% confidence interval [CI] = 1.38ó10.39) and pneumonia-related death (aHR = 13.88, 95% CI = 1.64ó117.21), than those with type II microbiota. There was no significant association between microbiota type and other-cause death. The tongue microbiota type was significantly associated with an increased mortality risk from pneumonia in nursing home residents.

　以上の内容をもって，本論文は施設入所高齢者における舌苔マイクロバイオームと肺炎死亡の関連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。