Association of Oral Hypofunction with Frailty, Sarcopenia, and Mild Cognitive Impairment: A Cross-Sectional Study of Community-Dwelling Japanese Older Adults

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Oral hypofunction is a new concept that addresses the oral function of older adults. Few studies have investigated the relationship between oral hypofunction and general health conditions such as frailty, sarcopenia, and mild cognitive impairment. This paper explores these relationships in a large-scale, cross-sectional cohort study. The relationships of oral hypofunction with frailty, sarcopenia, and mild cognitive impairment were examined using data from 832 individuals who participated in the 2018 health survey of the residents of Tarumizu City, Kagoshima Prefecture, Japan. Individuals with frailty, sarcopenia, and mild cognitive impairment had significantly higher rates of oral hypofunction. Frailty was independently associated with deterioration of the swallowing function (odds ratio 2.56; 95% confidence interval, 1.26–5.20), and mild cognitive impairment was independently associated with reduced occlusal force (odds ratio 1.48; 95% confidence interval, 1.05–2.08) and decreased tongue pressure (odds ratio 1.77; 95% confidence interval, 1.28–2.43). There was no independent association found between sarcopenia and oral function. In conclusion, early intervention for related factors such as deterioration of the swallowing function in frailty, reduced occlusal force, and decreased tongue pressure in mild cognitive impairment could lead to the prevention of general hypofunction in older adults.