Fundamental study and clinical application of the filter-paper disc method for taste evaluation

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Summary

Taste alteration and taste disorder occur in both healthy persons and patients with various clinical conditions. Nevertheless, the taste alterations and disorders are subjectively evaluated in most cases. In this study, we investigated the factors essential for evaluation of the sense of taste and determined the possibility of using a filter-paper disc method to evaluate of the sense of taste objectively in a wide range clinical practice.

This dissertation consists of two parts. One is fundamental study evaluating the sense of taste (in chapters 1 and 2), and the other is clinical application of taste test using a filter-paper disk method (in chapters 3 and 4).

In fundamental study evaluating the sense of taste, it was indicated that serum iron level and chronic fatigue may affect the taste threshold. As clinical application, this study suggested for the first time that the presence or absence of sensitivity to PROP may not affect the threshold of either four basic tastes or taste preference and that the threshold of a specific taste may be affected in pediatric cancer patients by the type of treatment received. It was also suggested that evaluation of the sense of taste with a filter-paper disk method can be used not only for diagnosis of taste disorders in the otolaryngology department but also for a wide range of clinical purposes. These findings allow evaluation of the sense of taste in a greater variety of patients (healthy subjects and patients) in a wider age range for the purpose of customized nutritional support for each patient.