

## Multi center analysis for the relation of salty taste sensitivity and blood pressure on individuals

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Aim of this study is clearing the relation of salty taste sensitivity and blood pressure by means of new measurement of salty sensitiveness. We developed a new examination for estimating the sensitivity of salty taste as follow; 1) 6 different concentration salines (0%-0.3%) are blinded. 2) Subject tastes 6 kind of salines and in order these concentration. Three hundred and thirteen volunteers, 129 men and 184 women in 4 observation areas (Osaka, Tokyo, Akita and Hokkaido) participated in this study. Questioner for food consumption and blood pressure were done with this study. One hundred and fourteen subjects (36%) answered correct concentrations. The relation of salt taste sensitivity with age, sex, blood pressure, obesity, smoking, drinking and frequencies of taking foods and favorites were analyzed by means of logistic regression method. Age and sex showed the significant correlation with salt taste sensitivities. We failed to find the relation of salty sensitive with other many factors including blood pressure. This result suggests that there are no relation of salty taste sensitivity and blood pressure.

On the other hand, partial correlation analysis controlled by age and sex showed that systolic blood pressure correlated significant with obesity, and diastolic blood pressure correlated with obesity, drinking habit and sodium chloride (NaCl) proportion of best concentration for noodle. Blood pressure showed inverse correlation with frequency of Miso soup a day. We estimate obesity is strong risk factor for blood pressure. It suggests NaCl influence blood pressure but showed discrepancies between best NaCl proportion for noodle and frequencies of Miso soup. Information bias, hypertension subjects refrain to take Miso soup because of information about sodium intake and hypertension, may include in this result. It showed a difficulty to prove the relation between life style and blood pressure under the influence of many interventions for preventing hypertension in Japan. We conclude from this study that there is questionable relation between high salty concentration food and blood pressure, and there is no evidence between salty taste sensitivity and blood pressure.