

COMPARATIVE EPIDEMIOLOGICAL STUDIES ON THE GENESIS OF HYPERTENSION IN
MOUNTAIN PEOPLE HABITUALLY TAKING TIBETAN TEA AND BUCKWHEAT IN NEPAL

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Summary

Objective: The purpose of this study is to investigate the genesis of hypertension in the Thakali tribe living at about 2,600~2,800 meters above sea level in the Jomson area of Nepal. The Thakali takes Tibetan tea (salt tea) and buckwheat habitually. Our purpose is also to compare the Thakali with members of the Sherpa tribe living in the Helambu area, at a similar altitude.

Subjects and Methods: A total of 229 men and 205 women of Jomson, and 173 and 178 of Helambu, aged from 20 to 85, participated in this study. To compare the results between the Thakali and the Sherpa, similar to medical, nutritional and anthropometrical procedures were performed on each group.

Results: (1). The body weight and body mass index (BMI) were significantly greater in the Thakali than in the Sherpa. (2). Both systolic (SBP) and diastolic blood pressure (DBP) were significantly lower in the Thakali than in the Sherpa. (3). The incidence of hypertension was 25% for men and 21% for women in the Thakali and 47% for both sexes in the Sherpa. (4). Fat, salt tea and alcohol intakes were significantly smaller in the Thakali than in the Sherpa. The Thakali living in Jomson took buckwheat and its leaves as the main foods, but the Sherpa in Helambu did not. (5). Estimated average salt intake was approximately 14~16 g/day in both areas. (6). SBP and DBP were significantly and positively associated with age, BMI or urinary Na excretion and negatively with urinary K excretion or protein intake by multiple regression analysis. (7). Urinary K excretion was significantly associated with buckwheat intake by multiple regression analysis.

Conclusions: These results suggest that buckwheat intake might bring about lower SBP and DBP levels in the Thakali than in the Sherpa since the contents of rutin in buckwheat and its leaves are extremely high.