Investigation of Blood Pressure and Nutrient Intake in a Tibetan Population Habitually Taking "Tibetan Tea" in Nepal

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The purpose of the Third Japan-Nepal Health Scientific Cooperative Study was to find out the difference of body composition, blood pressure, blood chemistries, nutrient intakes and physical activities between the Tibetan people and the hilly(Kotyang) or the suburban (Bhadrakali) villagers in Nepal who had been investigated in the previous collaborative study. Tibetan people have habitually taken Tibetan tea, which was made from rock salt, butter and tea, and have seemed to consume larger amount of salt than the two villagers.

We investigated the Tibetan people living at Jawalakhel Refugee Camp which was located about 6 km south from the center of Kathmandu. Two hundred and forty-two men and 306 women, aged from 20 to 85 years, participated in this study. To compare this study with the previous first and second one, the similar methods were applied.

The results are summarized as follows:

1). Body height was taller and the weight was heavier than those in the hilly and the suburban villagers. Body mass index and percent body fat were significantly greater than those in the two villagers.
2). Maximal oxygen uptake was significantly lower than the hilly villagers, but was almost the same as the suburban villagers or the Japanese.
3). Intake of energy per body weight was 44 kcal/kg/day. Fat energy ratio was 20-23% and animal fat ratio was approximately 70%.
4). Average daily salt intake was about 12-13 g/day, which was not so high as expected.
5). The incidences of borderline hypertension(BHT) and hypertension(HT) were 12.8% and 15.3% in the men and 7.5% and 6.9% in the women, respectively, and significantly increased with age.
6). Average serum cholesterol concentration was 158 mg/dl in the men and 163 mg/dl in the women, respectively.

Body composition, physical activity, the incidence of hypertension and nutritient intakes were all quite different from those especially in the hilly villagers. Although the Tibetan people consumed larger amount of salt than the other groups including the Japanese previously investigated, the correlation between the salt intake and blood pressure was not clearly detected by multiple regression analysis.