In the technical report series No. 231 of World Health Organization, certain factors which increase the risk for ischemic heart disease were given. These are high blood pressure, high serum cholesterol, obesity, diabetes, heavy cigarettes smoking and a family history of relevant cardiovascular disorders. Out of these six items four are related to dietary treatment. Principle of the dietary treatment is reduction of body weight and of serum lipid level.

Author's first recipes consisted of low calorie, low fat and relatively high protein, that is, 1,000 cal., 10 g. of fat, 80 g. of protein and 150 g. of carbohydrates. This recipes reduced body weight from 53.9 kg. to 50.1 kg. and cholesterol from 240 mg./dl. to 208 mg./dl., respectively after 4 weeks' application. And serum total lipids and lipoprotein $\beta/\alpha$ ratio were also reduced.

Author applied three recipes of diets with different total calories and the same proportion of constituents to the patients and found the results as follows; Both 1,000 and 1,500 calories diets reduced body weight and serum cholesterol, but with 1,500 calories diet several cases were found to have elevated weight and cholesterol after 4 weeks. With 2,000 calories diet the majority showed weight gain and elevation of serum cholesterol. Since basal metabolism needs about 1,500 calories, energy balance is negative with 1,000 calories, consequently they burn their depot fat. In spite of the severe negative energy balance the blood total ketone bodies remained unchanged during the dietary treatment for 1 month. This is the reason author has adopted the 1,000 calories diet to the treatment for ischemic heart disease. The recipe of this 1,000 calories diet is not easy to prepare due to limitation of fat to extreme low level in proportion to the protein. And dieticians were not favorable to this recipes.

After that the second trial was made, namely the severe limitation of fat intake was lightened. The second recipes consisted of 1,000 calories in total, 80 g. of protein, 15 g. of fat and 135 g. of carbohydrate. In this recipe it was advisable that the fat was made up of unsaturated fatty acid as much as possible. This new dietary treatment resulted in 5.1% reduction of body weight, 19.5% of serum total lipids and 9.8% of serum cholesterol after 1 month. This result is not inferior to the result of the first fundamental diet, and this result has led to the third recipe.

In the third diet the limitation of fat was omitted. The quantity of fat was
allowed to be free as much as 80 g. of protein contained. Even though the limitation of fat was omitted, the quantity of fat scattered between 20 g. and 15 g. This third recipe has reduced body weight, serum total lipids, serum triglycerides and serum cholesterol in 4.7%, 10.5%, 19.7% and 6.9%, respectively. But when quantity of fat elevated to 30 g. a day positively, serum cholesterol and serum total lipids increased a little, while body weight and serum triglycerides were reduced. With this recipe blood ketone body remained unchanged.

After all body weight and serum lipids are reduced as far as the diet of 1,000 calories with 80 g. of protein is given, except when the positive addition of fat is made.

There observed several cases of patients who showed no reduction of serum lipids during these 1,000 calories diet treatment. The majority of these subjects were the cases whose basal metabolic rate was low or the cases had albuminuria. The cases with albuminuria showed elevated serum cholesterol, while body weight and serum triglycerides were reduced. No heart failure and no nephritis were included in the cases with albuminuria stand against dietary treatment in their blood lipids.

The idea of higher quantity of protein comes from the simple fact that the heart muscle is made of contractile protein. Besides this simple reason epidemiological data show higher intake of protein is good for prevention of atherosclerosis, and lower intake of protein is not beneficial to lipid metabolism in animal experiment.

In animal experiment rich protein diet represses the effect of cane sugar on serum lipid, and low protein has no control over the elevation of serum lipids by cane sugar. It has been said for the long time that the type of carbohydrates had no difference on serum lipid level, and had the same effect on serum lipid level. But recently several reports on the effects of carbohydrates on serum lipids are seen. They say that the high intake of cane sugar looks to lead to atherosclerotic disease. Our data agree with those reports when animals are fed with low protein diet. But the experimental diet for animal is so extreme that these recipes for animal are improbable for man.

It seems that the problem of the type of dietary carbohydrates is not serious as far as the diet is rich in protein. But nowadays average protein intake of Japanese is not satisfactory and only this point is the problem.

Since hypertensive heart diseases are accompanied by ischemic heart disease very often, restriction of salt should be added to the low calorie recipes in those cases. The 1,000 calories recipe is therapeutic recipe and when the parameters of ischemic heart diseases got to targets, total calories should be raised to be enough to keep good condition. At that time proportion of constituents should be the same as the 1,000 calorie diet. Author applied this proportion of constituents to all patients with heart disease and is getting good effects.

One typical case of 59 years old man with angina of effort was presented, and effects of 1,000 calorie diet were discussed.