Session II-2

THE WORLD STRATEGY OF WHO IN THE CONTROL OF STROKE

SHOICHI ENDO, M.D.

Acting Director, Health Promotion and Protection, WHO Regional Office for the Western Pacific

IT is my great honour to present my paper "The World Strategy of WHO in the Control of Stroke" at the First Asian-Pacific Symposium on Stroke.

Most of the participants in this symposium are experts in the field of cardiovascular diseases. I think I should concentrate my presentation on the planning and management aspects of the control program.

Cerebrovascular disease has been discussed together with hypertension at several WHO meetings since hypertension is the most important cause of intracerebral hemorrhage and this disease can be virtually prevented by maintaining adequately lowered blood pressure levels and the occurrence of cerebral infarction is delayed if the hypertension is reasonably well controlled.

Unlike ischemic heart disease, stroke and hypertension are widely distributed in developing as well as developed countries. According to a number of epidemiological studies, 10–20% of the adult population in the world are in the hypertensive range (160/95 mmHg or above). Although the treatment of hypertension to maintain adequately lowered blood pressure levels is considered the most effective method to prevent stroke and to reduce the disease problem in the community, only about half the people with high pressure are aware of their condition, about a quarter are under medical care, and only about one-eighth are treated adequately. Therefore, development of well planned organization of control program is urgently needed. If disease control program aims to reduce a disease in the community the services have to reach every member of the community. Therefore the program must be integrated into the general health services including primary health care system with active community participation. The community based control project of rheumatic fever and rheumatic heart disease in the province of Pangasinan, Philippines is the good example of involvement of the general health workers in the disease control. Sixty percent of newly registered cases are discovered by midwives. Otherwise, these cases would remain

undetected.

In hypertension control, general health workers should play important roles such as in screening and follow-up of the patients for regular treatment.

There are some instances indicating that at the beginning of the project, a program is very active, but then activities have gone down after a few years. To maintain the activities of effective control program until the time that the disease is no longer a health problem, the program has to be well planned within the existing health service system and limited resources. The feasibility of active screening of hypertensives should be carefully considered.

Commitment of the community to support the program to achieve the goal is also important factor for a successful control program. There are good examples of community participation in Japan and Finland.

There are three kinds of services for stroke control:

1. Care of stroke patients including rehabilitation.
2. Treatment of hypertension for prevention of stroke.
3. Prevention of hypertension including primordial prevention.

Care of stroke patients and treatment of hypertension should be integrated into general health services. Prevention of hypertension by weight control, control of salt intake, promotion of physical activity, etc. need multidisciplinary approach which requires community education and school health education. These are essential components of stroke control. Comprehensive community based control program should be developed.

Before applying the program in the national scale, the program has to be tested in project areas for the feasibility. In many developing countries, resources are still limited and communicable diseases, malnutrition and population growth are still major health problems. The allocation of resources for hypertension control should be carefully considered. Otherwise, the

program will be spasmodic. In developing countries, allied health workers are the main force of health services. These workers have to be utilized for hypertension control if the program is to cover the majority of population. The manual and job description including referral system of the patients to the medical institutions of higher level should be developed in project areas. These workers have to be trained and supervised properly. The effectiveness of the program should also be evaluated in the project area. For this purpose, a baseline survey on the prevalence of risk factors, blood pressure, as well as blood cholesterol level and smoking habit, etc. should be conducted in the randomly selected sample and the same kind of survey in a few years later. For monitoring the morbidity, the stroke register should be established.

WHO is now promoting primordial prevention. Primary prevention of stroke usually implies an intervention against risk factors such as hypertension. However, for those who have already developed hypertension, intervention is difficult. As stated previously, only one-eighth of hypertensives receive adequate treatment. Hypertensive drugs are rather expensive for patients in developing countries.

In contrast to primary prevention, the concept of primordial prevention express the need to take appropriate action at early stage of life that have been shown to contribute to the incidence of cardiovascular diseases in populations. Primordial prevention of cardiovascular diseases therefore implies preventing the emergence of risk factors in populations that have not yet acquired them.

Such population would be young generation or child and/or population who have not been exposed to the lifestyle which is common in affluent countries. For example, the prevalence of hypertension is quite different between urban and rural in Samoa and Fiji, also migrants in New Zealand from South Pacific and the population staying in islands. This is most probably due to changes in diet and lifestyles. This implies not only hypertension but also ischemic heart diseases and diabetes, and also cancer pattern. In many countries, stomach cancer is decreasing, and breast, large bowel and lung cancers are increasing. This may be due to the change in dietary habits and lifestyle. These issues need still basic and epidemiological studies but based on the available knowledge, we should take action to prevent the introduction of risk factors into a new population. This requires multidisciplinary approach such as cooperation of behaviour scientist, sociologist, economist, education and other industries such as agriculture.

The WHC Regional Office is collaborating with member countries, development of community-based control programs, particularly projects providing technical cooperation, also in training through conduct of training courses once every 2 years, provision of fellowships and promoting epidemiological research and operational research. The research activities are monitored by the subcommittee on cardiovascular diseases of the Western Pacific Advisory Committee on Medical Research that meets every year.