Editorial note

Metabolic Syndrome Challenge

It is projected that from 1980 to 2020 the elderly population will rise by 240%. World population is projected to grow from 6 billion currently to about 9.4 billion by 2050 with aging emerging as the most pressing demographic issue facing humanity in the millennium. Similarly, the overall national development in Indonesia leads to an increase of the number of elderly population from 8.0 million in 1980 to 14.9 million by the year 2000. By the year 2020, in Indonesia, the number of elderly people will be three times the number of elderly than in 1990.

Increasing the total number of elderly population will have several consequences related to health, economy, and complex socio-cultural problems. Health problems related to aging, among others, are degenerative diseases, metabolic diseases, and psychosocial disturbances.

The impact of changing in socioeconomic status related to nutrition and health is double burden problem, with increasing degenerative diseases, as a risk of changing of lifestyle, while infectious diseases still exist.

In the last 10 year, major cause of mortality in Indonesia showed that death due to cardiovascular diseases (CVD) consistently in the top of the top ten. It is predicted that death due to cardiovascular diseases will keep on increasing in the next 5 years.

Identification of CVD risks or determinants and their interplays is crucial for successful preventive intervention. Coronary heart disease, hypertensive heart disease (HHD), and stroke are the main causes of morbidity and mortality in the elderly in Indonesia, both in hospital and community settings.

One explanation for the high rates of CVD in type 2 diabetes has been metabolic syndrome, an insulin-resistant state associated with visceral obesity, hypertension, dyslipidemia, and glucose intolerance. This configuration of conditions was initially called syndrome X by Reaven in 1988, when he first proposed insulin resistance as the basis for the syndrome. Although the exact cause is still being investigated, a close interplay between genetic factors and lifestyle issues accounts for its rapidly increasing prevalence worldwide. The actual prevalence of metabolic syndrome varies greatly in different population groups and is also affected by the definition used to make the diagnosis.

Several migration studies indicate that adoption of the western lifestyle is strongly associated with type 2 diabetes. Among the environmental changes imposed on the Japanese immigrants in Brazil, changed in dietary habits were probably one of the most important. Their current dietary pattern contrasts with the traditional Japanese diet, particularly concerning the proportion of fat, which, in association with sedentary lifestyle, may be contributing to increased visceral adiposity and a predisposition to metabolic syndrome.

Weight gain, in particular the abdominal depot body fat, has a key role for the development of the syndrome. Lack of physical activity and certain dietary patterns, including high saturated fatty acid and low vegetable intake, contribute to weight gain and increase the risk of metabolic disturbances, whereas such potentially modifiable lifestyle factors may reduce cardiovascular risk.

Several studies while observing various determinants of metabolic syndrome in the elderly population, questions which often arise are: what are the key factors determining the occurrence of metabolic syndrome. The interplay between nutritional factors and metabolic syndrome has been discussed in several studies. However; further question is worth to be asked whether there are other factors which are more prominent than nutritional factors in the elderly population, leading to the occurrence of metabolic syndrome. World Health Organization (WHO) Scientific Group reported that both nutritional and non nutritional factors such as physical activity, alcohol and stress can be additional risks to the occurrence of metabolic syndrome. Therefore; attention should be paid to all of the important risk factors rather than concentrating on one single risk factor.

Currently prevalence of metabolic syndrome in Indonesian elderly, particularly in women is around 15% It is therefore, timely to have better understanding on the relations of anthropometric measurement, lipid profile, life style, and other health indicators with metabolic syndrome in the Indonesian elderly.

Public health implication of better understanding on metabolic syndrome and its risk factors hopefully will improve prevention programs.

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