Recent problems for the elderly life - diabetes, dementia, frailty

Keywords: diabetes, dementia, frailty, locomotive syndrome, Hinohara-ism, New Elderly Association (NEA)

Abbreviations: LCD, low carbohydrate diet; PURE, prospective urban rural epidemiology; AGEs, advanced glycation endproducts; WHO, world health organization; AHA, american heart association; CVH, cardiovascular health; CVD, cardiovascular disease; ASA, american stroke association; NCDs, noncommunicable chronic diseases; RCTs, randomized controlled trials; AHEAD, action for health in diabetes; NEA, new elderly association.

Introduction

In recent years, three fields have been raised as health problems of elderly people. They are

i) Metabolic syndrome such as diabetes, obesity, hypertension, hyperlipidemia for internal medicine,

ii) Dementia, and/or impaired cognition ability for psychology and psychiatry and

iii) Frailty and locomotive syndrome for orthopaedic and rehabilitation medicine.

These topics would be introduced and discussed in this article.

Comment

As to clinical practice, there is common path physiological mechanism of hinsulin resistance which is found in diabetes, hypertension, hyperlipidemia, obesity, metabolic syndrome and so on. Consequently, weight reduction and diet therapy would be necessary.

As to clinical practice, there is common path physiological mechanism of hinsulin resistance which is found in diabetes, hypertension, hyperlipidemia, obesity, metabolic syndrome and so on. Consequently, weight reduction and diet therapy would be necessary.

Recommended optimal levels of cardiovascular health 7 metrics for ascertainment of cardiovascular health status are in the following:

i) Nonsmoking: never or quit more than 12 months prior,
ii) Body mass index <25,

iii) Physical activity regular physical activity,

iv) Healthy diet: eating fish twice a week or more and fruits and vegetables at least 3 times a day,

v) Total cholesterol <200mg/dL (untreated),

vi) fasting glucose <100mg/dL (untreated),

vii) blood pressure <120/80mmHg (untreated). By utilizing 7 metrics, a new strategic direction going forward in cardiovascular health promotion and disease prevention would be provided in the projects of AHA and American Stroke Association (ASA).

Generally speaking, My Life Check - Life’s Simple 7 of AHA has been evaluated routinely in clinical practice, including obesity, smoking, glucose, lipid profiles and blood pressure. However, physical activity has not been so assessed in usual practice due to rather difficulty of correct evaluation. Physical inactivity has been one of the crucial public health problem, leading to cardiovascular disease (CVD) and noncommunicable chronic diseases (NCDs). According to recent study, one third of the population worldwide has less than recommended physical activity guidelines. One of the reasons would be the difficulty to quantify the degree of various physical activities.

AHA has a strategic goal by the year 2020 to reduce 20% of deaths from stroke and cardiovascular accident, and to promote 20% of cardiovascular health of all Americans. Toward the goal, defining optimal brain health in adults would serve to provide AHA/ASA with a new strategic direction in the future.

Thirdly, frailty and locomotive syndrome are also crucial problems. These statuses can be exacerbated by the presence of diabetes and dementia. Other factors are also affected by metabolic syndrome, obesity, decreased activity, increased immobility, unstable metabolism, malnutrition, bone problems and older age.

As to the treatment and protection of frailty, nutritional supplementation alone without exercise cannot be useful. An effective method is to strengthen resistance movement of the muscles in the aged. Randomized controlled trials (RCTs) in elderly people with obesity showed improvement in motor function by combined use of weight reduction, aerobic exercise and resistance exercise.

The recommended strategy would be improving lifestyle habits. There was a one-year lifestyle habit program, in which a decrease in femoral muscle mass and bone mass were suppressed in elderly patients with obesity.

Lifestyle Intervention Trial has been performed in the previous studies. Among them, the famous RCT is Action for Health in Diabetes (Look AHEAD) study, which is a survey of weight loss for type 2 diabetes. In the Intensive Lifestyle Intervention group, body function and walking speed were proved to be higher.

In summary, three topics of diabetes, dementia, and frailty are described. Those are not only medical problem and but also bio psycho social problem. In other words, the correction of lifestyle habits may be necessary. From social point of view, Dr. Shigeki Hinohara who was active until 105 years old, has advocated lifestyle diseases for a long time ago and enlightened the significance of primary care medicine and patient-oriented medicine. Furthermore, he established “New Elderly Association (NEA)” on 2000 and developed Hinohara-ism in various aspects. As a result, Japan has evolved into a country where prominent medical and health circumstances are seen. I hope this article will be useful to anti-aging medicine and happiness of people.

Acknowledgments

None.

Conflict of interest

The author declares that there is no conflict interest.

References


Recent problems for the elderly life - diabetes, dementia, frailty


DOI: 10.15406/jdmdc.2018.05.00158