2025年度

一般選抜　前期日程

長野県立大学
健康発達学部
食健康学科

小論文

（　90分　）

注意事項

1　試験開始の合図があるまで，この問題冊子を開いてはいけません。
2　問題冊子は8ページあります。解答用紙は2枚，下書き用紙は1枚あります。
3　試験開始の合図後，まず，問題冊子，解答用紙の落丁，乱丁，印刷不鮮明等がないか確認し，気付いた場合は，手を挙げて監督者に知らせてください。
4　試験開始後，受験番号，氏名を解答用紙の所定欄（解答用紙1枚につき，受験番号2箇所，氏名1箇所）に記入してください。
5　試験開始後は，原則として，試験が終了し退出許可が出るまで退出できません。
6　解答は，解答用紙の指定された箇所に，横書きで記入してください。
解答用紙にアルファベット，算用数字を記入する場合，1マスに2文字ずつ入れてください。（ただし，字数が奇数の場合は，末尾の1文字は1マスに入れてください。）
7　解答用紙は持ち帰らないでください。
8　試験終了後，問題冊子および下書き用紙は持ち帰ってください。

問題　次の文章（英文）を読んで，問１および問２に答えなさい。

With the rise in the world's aging population, there is a concomitant(注１) increase in the prevalence of(注２) age-related cognitive decline (ARCD). In 2015, 8.5% of the global population was aged >65 y (~617 million); that is expected to rise to 12% by 2030 (~1 billion), and 16.7% by 2050 (almost 1.6 billion).

A continuum exists from normal cognition to dementia(注３), the onset(注４) and progression of which is predicted by a number of risk factors including age, gender, education level, and genetic susceptibility(注５). Several modifiable factors increase the risk for ARCD, including midlife(注６) obesity, hypertension(注７), diabetes(注８), and current smoking. However, physical activity and a healthy diet appear to decrease the risk.

Plant foods commonly consumed by Asians are green leafy and other vegetables, soy, whole grains, green tea, mushrooms, and seaweed. Consumption of diets featuring many of these plant foods is associated with reduced risk of cognitive impairment(注９), slower rate of cognitive decline, better scores on logical memory, or higher global cognitive assessment scores. Elderly adults from other countries (Norway, Australia, Italy) consuming a diet plentiful in fruits, vegetables, and legumes(注10) also show improved cognitive outcomes. Interestingly, colorful vegetables, fruits, nuts, non-soy legumes, and olive oil are less emphasized in the Asian diets. Food preparation and processing techniques are also important considerations. In some Asian cohorts(注11), the diets associated with improved cognitive outcomes feature stir-fried (in oil) and fermented(注12) vegetables (pickled cabbage(注13)), which could enhance the bioavailability of phytochemicals(注14). Similarly, a "multigrain rice(注15)" dietary pattern (brown rice, millets, black rice) compared with a "white rice and noodles" dietary pattern was shown to reduce the risk of cognitive impairment in elderly Asians, attributed to the higher total polyphenol content in whole grains. Thus, the presence of a variety of plant foods rich in bioavailable bioactive compounds rather than any 1 specific food could be important for preventing ARCD.

Whereas in Western countries intake of red meat has been associated with poor cognitive outcomes, among elderly Asians there seems to be either a beneficial effect on or no association with cognition. This could be due to the low amount of red meat consumed by Asians (35 g/day) compared with Western populations (128 g/day). Unlike red meat, the type of fish rather than the amount seems to matter for cognitive benefit provided the background diet includes a variety of plant-based foods.

We should acknowledge that besides diet, other lifestyle factors such as adequate sleep, rest, and physical activity play roles in modifying the risk for cognitive decline. A comprehensive approach addressing both diet and lifestyle components known to improve cognition could be the most effective means of reducing the population risk for ARCD.

注 1　concomitant：付随する
注 2　prevalence of～：～の有病率
注 3　dementia：認知症
注 4　onset：発症
注 5　susceptibility：感受性
注 6　midlife：中年（の）
注 7　hypertension：高血圧症
注 8　diabetes：糖尿病
注 9　impairment：障害
注 10　legumes：豆類
注 11　cohort：コホート調査（調査方法のひとつ）
注 12　fermented：発酵した
注 13　pickled cabbage：キャベツの漬物
注 14　phytochemical：植物化学物質
注 15　multigrain rice：雑穀米

出典：Reprinted from Advances in Nutrition, Volume 10, Supplement 4, Sujatha Rajaram, Julie Jones, Grace J Lee, "Plant-Based Dietary Patterns, Plant Foods, and Age-Related Cognitive Decline", Pages S422-S436, Copyright 2019, with permission from Elsevier.

https://www.sciencedirect.com/science/article/pii/S2161831322002289

問 1　本文の内容を踏まえ，認知症と食事の関わりについて，150 字以内の日本語で述べなさい。

問 2　本文の内容を踏まえ，認知症予防のための食事について，管理栄養士としてあなたが考える具体的な取り組みを 600 字以内の日本語で述べなさい。