NEW DIMENSION SERIES

Sustainable Development Goals (SDGs) for Hypertension Zero in the era of Anthropocene.

CATEGORY B: HYPERTENSION AND DIVERSITY

When in Rome, do as the Romans do: respect to regional traditional arts for coping with diseases

HIROSHI ITOH

Specially Appointed Professor, Center for Preventive Medicine, Keio University Tokyo, Japan Professor Emeritus of Keio University

Sustainable development goals (SDGs) focus upon the reduction of regional disparities of income, education quality, food availability, clear water/ energy supply or living circumstances. Food availability/choice and eating behaviors are crucial in SDGs and well-being, which are the themes of this Hypertension News Series. In a Gallup World Poll on the joy of eating, healthy eating, food choices, and subjective well-being, conducted in over 140 countries or regions in 20221, =87% of the survey participants answered that they enjoyed their meals during the last 7 days, although social situations differ greatly in different countries. 82% of them thought that they eat healthy food and 63% felt that they are offered several choices of food. There are significant positive links between dietary diversity and happiness. Surprisingly, the analysis shows that the contributing power to subjective well-being of enjoying meals is comparable to that of income. Many people in the world, thus, enjoy their meals in their respective regions by their respective ways, which usually serves for the promotion of their health.

Japan is now the No.1 country for longevity in the world, partly due to Japanese traditional food, which was designated as being on UNESCO list of Intangible Cultural Heritage in 2013. It contains a variety of dishes including fermented food and raw fish. Mediterranean diets also show their effectiveness for prevention of cardiovascular diseases in a similar fashion.

It is clearly demonstrated that calorie restrictions, intermitting fasting or time-restricted eating exert prolongation of healthy life span up to the primates. In this issue, Dr. Boobes reports on the effectiveness of Ramadan fasting (RF) for the patients with hypertension (see next article), chronic kidney disease or cardiovascular diseases. Safe and favorable effects of RF can be expected, depending on the extent of the disease state in each patient.

Regional traditional or religious arts should be respected. I believe that these "habits" contain meaning, since they have been inherited through a long period of history for the maintenance of society and of the health of people living in that society. Diversity, in this sense, is significant for SDGs.

Darwin's concept of "survival of the fittest" posits that advantageous traits, conferring stronger survival abilities, are selected for survival. Individuals possessing beneficial genetic mutations for overcoming competition and surviving can prevail. The theory of "natural selection", which emerged around 1920, is rooted in this idea, suggesting that survival of the strongest is "natural" and inevitable. This concept, however, sounds somewhat discordant to me. Intuitively, relying solely on the survival of the strongest in competition seems unsustainable for the world. Diversity is crucial for ensuring robustness in biological societies. The famous Japanese





geneticist, Motoo Kimura (1924-1994), advocated the "neutral theory (principle) of molecular evolution", suggesting that observed genetic variations survive by chance rather than solely through advantageous traits. Genetic mutations passed to the next generation were due not only to their survival advantages but also various factors (such as bottleneck effects and genetic drift), ultimately attributing their survival to fortunate circumstances (equilibrium selection theory) in contrast to "survival of the fittest" in natural selection theory. In addition, Kinji Imanishi (1902-1992), an ecologist at Kyoto University, proposed the "Theory of Habitat Segregation" regarding species evolution. Through observing variously shaped mayflies in the Kamo River in Kyoto, Imanishi developed his unique perspective. He thought that mayflies, which gradually assumed different forms due to random genetic mutations, came to inhabit parts of the river that matched their bodies and, as a result, survived there. In

other words, the organisms actively sensed their environment, found the right place to live, and achieved a peaceful life and survival. Darwin's idea that the natural environment selects the species is entirely opposite to Imanishi's idea that species choose their environment.

I believe that all people in various regions of the world have been surviving in their respective regions, by making efforts to modify their living habits and maximally adjust themselves to their environments in order to achieve a maximal health condition.

"When in Rome, do as the Romans do", I think is really a true saying.

References

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Hiroshi Itoh - hiito@keio.jp





