



Case Report

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Changing Kampo Medicine by Global Warming

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Climate change induces global warming. We consistently observe similar occurrences elsewhere in Japan. The average August temperature in Tokyo reached 29.2°C in 2023, compared to 24.6°C in 1878 [1]. Several medical reports suggest that this warming is associated with adverse human health effects, such as an increased incidence of neurological diseases [2] or exacerbated respiratory allergic diseases [3]. However, there are no reports linking global warming and Kampo medicine. Recently, we encountered two cases where Kampo prescriptions were altered due to global warming.

Case 1 involves a 63-year-old woman who suffered from severe cold sensitivity. Despite prescribing various Kampo medicines (such as tokishakuyakusan and keishibukuryogan), the effectiveness was limited. Until spring 2023, she relied on multiple socks and thick blankets to alleviate severe cold sensations during sleep. However, in the summer of 2023, her cold sensitivity vanished, and she comfortably slept with the air conditioner and a thin blanket without any Kampo medicine.

Case 2 pertains to a 47-year-old woman experiencing menopausal symptoms such as hot flashes and irritability. She sought Kampo Medicine in 2019. Her tongue exhibited a typical Kami Shoyo San (KSS) pattern, indicating a rapid tongue response with a white coating. We diagnosed fullness and discomfort in the chest and hypochondrium and prescribed KSS, which effectively controlled her symptoms for five years. However, in July 2023, she complained of feeling overheated and sweaty, rather than experi-

encing hot flashes, likely due to high temperatures. Her flushed face and profuse sweating suggested heat-related discomfort rather than menopausal hot flashes. Consequently, we opted to switch her Kampo medicine to induce body cooling.

Generally, KSS is suitable for patients with deficiency patterns, while nyoshinsan (NYS) is suitable for those with excess patterns. NYS, like san'oshashinto, contains Scutellaria Root and Coptis Rhizome, known for their cooling properties. Hence, we prescribed NYS (TSUMURA 7.5g/day for 10days). After taking NYS, her tongue returned to a white color, and the overheating sensation significantly decreased.

KSS was described in Souhaku Asada's "The Japanese Kampo Book: Houkankuketu [4]" from 1878. Ms. Masumi Zaiki [5] reported that the climate conditions during the Edo period in 1878 were characterized by a "Little Ice Age." We speculate that Kampo physicians prescribed KSS to patients in environments 4-5 degrees colder than present-day conditions. The main effectiveness of KSS, as stated in the book, is to cool down and address upper body blood disorders. However, given the current 4-5-degree higher temperatures, KSS may not be as suitable for today's patients.

By October 2023, temperatures had decreased to nearly average levels. Her overheating ceased, and she began experiencing chills. Consequently, we switched her prescription from NYS back to KSS. Presently, she continues to take KSS without experiencing hot flashes or side effects.



These cases illustrate how cold sensitivity vanished due to global warming, prompting a switch from KSS to NYS, and then back to KSS as temperatures decreased. Therefore, we may need to consider temperature changes influenced by global warming when prescribing Kampo medicine, not solely the patient's condition.

Conflict of Interest

Hajime Nakae received honoraria from the Tsumura Co.

Informed Consent

Informed consent was obtained from the patients.

Acknowledgement

None.

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