

Editorial

Having Experienced a Record Intensity Earthquake Twice

From a global perspective, Japan is situated in a region that is subject to a high concentration of earthquakes of great magnitude. In 2011, the Great East Japan Earthquake triggered a massive tsunami that wreaked unprecedented havoc on the coastal area of the Tohoku region, but even before our memory of this disaster had begun to fade, a historical earthquake struck Kumamoto in the spring of 2016. That is, an intensity 7 earthquake, the highest seismic intensity to ever be measured, struck the area not only once but twice in a row, for the first time in recorded history. At the time, I was working at a foundation hospital in the very vicinity of the earthquake, a mere 4 kilometers from the epicenter, and took to providing care since immediately after the earthquake. As the earthquake occurred inland directly below the city, numerous houses collapsed, lifeline utilities including electricity, gas and water were damaged, and many people were forced to leave their homes. The greatest characteristic of this disaster was that an earthquake of intensity 7, the odds of which is said to occur maybe once in a hundred years, occurred twice in the same area, with the second tremor occurring a mere 28 hours after the first, and on an even greater scale. This instilled a strong sense of fear in many people's hearts that they might be hit by another large earthquake, such that even those whose homes were still livable continued to stay at an evacuation center or live out of their cars.

Under such circumstances, what role was Kampo medicine able to play? In evacuation centers, there were outbreaks of viral gastroenteritis. The malady tends to become epidemic in evacuation centers, where toilets are not sufficiently available, and is also known to be fatal at times among physically weak patients. Once it becomes epidemic due to its explosive infectability, limited medical resources, water and toilets tend to be taken up by its patients. Only symptomatic treatment is available for viral gastroenteritis, but oral administration of Goreisan was extremely effective in alleviating its symptoms in a few hours. This is widely known among those who have provided this treatment. Additionally, viral gastroenteritis is said to have strong infectability particularly during severe symptoms of vomiting and diarrhea, but Goreisan was also useful in controlling an epidemic.

When sleeping in the confined space of a car, deep venous thrombosis could occur with inadequate movement of the legs and increase the incidence of pulmonary embolism. In fact, our hospital also received many times more patients of pulmonary embolism and deep venous thrombosis than usual years. A common risk factor of deep venous thrombosis is leg edema. Using a diuretic to treat leg edema tends to cause dehydration, which readily leads to deep venous thrombosis. Elastic stockings are generally used against venous thrombosis, but wearing these stockings takes getting used to, and incorrect use could cause pain or skin damage. Leg edema that is caused by not moving the legs could be effectively treated with Boiogito in a way that differs from active diuresis.¹⁾ It is also effective against hydrarthrosis and the pain that accompanies it. Indeed, it was highly appreciated by patients who received Boiogito treatment for leg edema and osteoarthritis caused by sleeping in a car.

The common cold also tended to run rampant in evacuation centers. As people are crowded together in an open space with no walls, any coughing is easily heard and frowned upon, and the patient necessarily becomes self-conscious. For persistent nighttime coughing during the recovery phase, I mostly used Chikujountanto. Not only does it mitigate the coughing, but it is also effective against anxiety, frustration, and insomnia, so it was extremely useful in alleviating people's stress caused by the earthquake and their lack of privacy. The severe frequency of aftershocks was a rarity in the history of earthquakes, and each aftershock reminded people of the main quake. Without any signs of their situation improving, the anxiety of not knowing when they could return to their ordinary lives exacerbated anxiety disorders in many people. Benzodiazepine anti-anxiety medicine poses a risk of delirium and falling especially among elderly people, so it could not be readily used. Sleeping pills to treat insomnia stemming from anxiety were barely taken by patients who worried that they may not be able to wake up quickly when another earthquake occurs. Thus, for patients who mainly suffered from insomnia, I had them drink plenty of Sansoninto before sleeping. For patients who complained of flashbacks, I used Saikokeishikankyoto, as it was proven effective in a research conducted by the Kampo medicine department at Tohoku University, which provided Kampo treatment in the wake of the Great East Japan Earthquake even while it was itself affected by the disaster.²⁾ Such patients who also suffered from a strong case of insomnia were effectively treated through the combined use of Sansoninto, and patients with anxiety disorder characterized by a strong sense of malaise were particularly effectively treated with Kamikihito.

Almost two months after the earthquake as I write this paper, most people are awash with a feeling of exhaustion from the countless aftershocks that are said to be the largest number ever in history, as well as from the endless tasks to restore their lives and the tension that has reached its limit. It seems there are many people who would benefit from Hochuekkito and Kososan.

- 1) Kashima, M. "Let's Ask a Renowned Doctor of Days Past: Part 10—Nanyo Hara's Treatment of Edema from *Sokeitei Iji Shogen*." *Kampo Practice Journal*, 2016, Vol. 7, No. 1, pp. 60-63.
- 2) Numata, T. etc. Treatment of posttraumatic stress disorder using the traditional Japanese herbal medicine saikokeishikankyoto: a randomized, observer-blinded, controlled trial in survivors of the great East Japan earthquake and tsunami. *Evidence Based Complement Alternate Med.* 2014; 2014:683293. doi: 10.1155/2014/683293./

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