



Original article

Role of traditional Japanese medicines in the relief effort in areas affected by the Great East Japan Earthquake

Hajime Nakae*

Department of Emergency and Critical Care Medicine, Akita University Graduate School of Medicine, 1-1-1 Hondo, Akita 010-8543, Japan

ARTICLE INFO

Article history:

Received 12 January 2012

Accepted 8 March 2012

Keywords:

The Great East Japan Earthquake
 Traditional Japanese medicines
 Kampo medicine
 Sensitivity to cold
 Medical support system

ABSTRACT

The medical system of the Tohoku region was disrupted by the Great East Japan Earthquake on March 11, 2011. Akita University Hospital provided medical support to earthquake-affected areas in Rikuzentakata City, Iwate Prefecture. The 11th team, out of 27 Akita University Hospital Medical support teams, provided medical support service including Kampo, traditional Japanese medicine, from April 17 to 20, 2011. However, out of the 210 Kampo preparations, only 11 were available. Kampo medicines were prescribed for 13 patients for 3 days. The patients presented with symptoms of arthralgia and myalgia caused by coldness of the body, skin manifestations caused by a lack of bathing, respiratory disorders due to pollen dispersal and dust, and depression due to the loss of family. Kampo medicines were effective for treating both physical and mental distress even in unusual circumstances. Hence, Kampo medicine is potentially useful in relief efforts in disaster-stricken areas.

Copyright © 2012, International Society of Personalized Medicine. Published by Elsevier B.V. All rights reserved.

1. Introduction

The Great East Japan Earthquake was an undersea 9.0-magnitude megathrust earthquake that occurred at 1446 on Friday, March 11, 2011 off the coast of Japan; its epicenter was approximately 70 km east of the Oshika Peninsula of Tohoku, and its hypocenter was at an underwater depth of approximately 32 km. This earthquake was the most powerful earthquake to have ever hit Japan and one of the 5 most powerful earthquakes worldwide since modern record keeping began in 1900. This earthquake caused massive destruction to Japanese social activities including the medical system. A total of 27 Akita University Hospital Medical support teams and 2 disaster medical assistance teams (DMATs) provided medical support service mainly in Iwate Prefecture. I performed medical support by using Kampo, the traditional Japanese medicine, in Rikuzentakata City, Iwate. Herein, I report cases treated with Kampo preparations.

2. Medical support activities

2.1. Medical support teams

A total of 27 teams (49 doctors, 39 nurses, and 27 office workers) provided medical support at the Yonesaki Community Center and

Kojuen Healthcare Facility for the Elderly in Rikuzentakata City from March 17 to July 15, 2011. The 11th team of 2 doctors, 2 nurses, and 1 office worker was dispatched to the dispensary in the Yonesaki Community Center and provided services from April 17 to 20, 2011 (Fig. 1). I provided medical care under the direction of Dr. Mikihito Ishiki, who was the Iwate Prefectural Takata Hospital director. Six doctors from Tokyo, Mie, and Akita used 6 makeshift examination rooms and performed physical examinations between 0900 and 1500. The water supply to the area had been cut off, and there was light snowfall (Figs. 2 and 3).

2.2. Case presentation

Ninety (16 in charge), 75 (12 in charge), and 71 (13 in charge) patients attended the dispensary on days 1, 2, and 3, respectively. Among these, 13 patients were treated with Kampo medicines for 3 days (Table 1). However, out of the 210 Kampo preparations, only the following 11 were available: Sin'iseihaito, Shoseiryuto, Daiokanzoto, Daikenchuto (DKT), Shosaikoto (SST), Goshajinkigan (GJG), Shakuyakukanzoto, Ryokeijutsukanto, Oredgedokuto, Hangeshasinto, and Hochuekkito. Furthermore, the doses of Shoseiryuto, DKT, and GJG were reduced by half because of stock shortage in the pharmaceutical department. DKT was delivered from the Iwate Prefectural disaster headquarters on day 3.

The inclusion criteria for Kampo treatment were as follows: patients who requested alternatives to regular medication (Daio-kanzoto for constipation; SST for nausea and bloody stool due to

* Tel.: +81 18 884 6185; fax: +81 18 884 6450.

E-mail address: nakaeh@doc.med.akita-u.ac.jp.



Fig. 1. Locations of Akita and Rikuzentakata in the North Tohoku region. The cross shows the epicenter of the Great East Japan Earthquake (38.322°N 142.369°E).

ulcerative colitis), patients who had coldness of the body and skin manifestations caused by a lack of bathing and cold weather (GJG for coldness of lower extremities, leg edema, and nocturia), patients who developed respiratory disorders due to pollen dispersal and dust resulting from debris removal (Shin'iseihaito and Shoseiryuto for rhinitis, bronchitis, and pollinosis), patients who showed no improvement even after taking regular medication (Ryokeijutsukanto for dizziness, DKT for acute abdomen, and Shakuyakukanzoto for cramping in the calves), and patients who experienced depression due to the loss of family (Hochuekkito for general fatigue).



Fig. 2. A makeshift reception in the Yonesaki Community Center. The pharmacist enquires the patients about their regular medication before medical examination.



Fig. 3. A makeshift in-house pharmacy in the community center. Drugs were placed in the cardboard boxes according to their therapeutic classification.

3. Discussion

The Great East Japan Earthquake was caused by a 5- to 8-m upthrust on a 180-km-wide area of seabed 60 km offshore from the east coast of Tohoku. This resulted in a major tsunami, which caused substantial destruction on the Pacific coastline of Japan's northern islands, resulting in a huge loss of life and the devastation of entire towns. Large parts of Kuji, Iwate, and the southern section of Ofunato including the port area, were almost completely destroyed. Furthermore, substantial destruction occurred at Rikuzentakata, where the tsunami was reported to be as high as a 3-storey building. Iwate Prefectural Takata Hospital and 6 out of 7 clinics in Rikuzentakata were destroyed by the tsunami. Therefore, the community center located on the hillside of the city was used as the hospital dispensary. Although in- and out-patient departments were set up in the community center, there was a shortage of medical supplies and Kampo preparations. Because almost all hospitals and clinics were destroyed, medical records were lost completely. Because many patients did not know the precise details of their regular medications, they could not report the type or amounts of drugs they were taking, at the makeshift reception in the community center. In such situations, Kampo medicines should be utilized alongside modern medicines.

Table 1
Demographic data of patients treated with traditional Japanese medicines.

No.	Age (years)	Gender	Diseases	Traditional Japanese medicine
1	72	F	Numbness of lower extremities	Gosyajinkigan
2	51	F	Ulcerative colitis	Shosaikoto
3	60	F	Allergic rhinitis	Shoseiryuto (Available only for 3 days)
4	76	F	Bronchitis	Shin'iseihaito
5	80	F	Constipation	Daiokanzoto
6	93	F	Bronchitis	Shin'iseihaito
7	75	M	Acute abdominal pain	Daikenchuto 7.5 (N/A 15 g/day)
8	53	F	Pollinosis	Shoseiryuto
9	74	M	Dizziness, glossitis	Ryokeijutsukanto
10	79	F	Cramping in the calves	Shakuyakukanzoto
11	62	F	Diabetes mellitus, nocturia	Goshajinkigan 5.0 g/day (N/A 7.5 g/day)
12	68	F	Depression	Hochuekkito
13	90	M	Leg edema, prostatic hyperplasia	Goshajinkigan 5.0 g/day (N/A 7.5 g/day)

M: male; F: female; N/A: not available.

Download English Version:

<https://daneshyari.com/en/article/3382666>

Download Persian Version:

<https://daneshyari.com/article/3382666>

[Daneshyari.com](https://daneshyari.com)