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Kampo medicines and incident reporting system in Japan: Role of PMDA

Kampo medicine is a traditional Japanese medicine that originated from traditional Chinese medicine and uniquely developed after being introduced into Japan. Currently in Japan, Kampo medicines are available not only as over-the-counter drugs, but also as prescription drugs (i.e., ethical drugs). Indeed, Kampo medicines have been integrated into the national Japanese health-care system. At present, 148 Kampo extract formulations and approximately 200 types of crude drugs have been approved by the Ministry of Health, Labor, and Welfare (MHLW) and are being used under the national health-insurance program.

There is no medical license specific to Kampo medicine in Japan, so it is possible for physicians who are not Kampo medicine specialists (not certified by the Japan Society for Oriental Medicine) to prescribe Kampo medicines. The development of modern, ready-to-use forms of Kampo medicines has resulted in increased usage, mainly of spray-dried granular extracts of the original formulas. Kampo extracts for ethical use have largely replaced traditional decoctions of the crude drugs, even though crude drugs are also covered by the national health-insurance system. Japanese physicians with limited knowledge of Kampo medicine tend to prescribe ethical Kampo extracts, rather than crude drugs for decoction, mainly based on their knowledge of conventional Western medicine. The application of ethical Kampo formulations has steadily increased in recent decades, and according to a survey conducted by the Japan Kampo Medicines Manufacturers Association, 89.0% of physicians prescribed Kampo medicines in their daily medical practices in 2011.

It was long thought that Kampo medicines had a mild effect and were rarely associated with adverse events. Historically, reported Kampo medicine-induced adverse events included pseudoaldosteronism caused by Glycyrrhizae Radix (kanzo in Japanese), sympathomimetic effects caused by Ephedrae Herba (mao in Japanese), and aconite intoxication caused by Aconiti Tuber (bushi in Japanese). However, it has become clear that Kampo medicines can be accompanied by more serious adverse events. In recent decades, it has been reported that Kampo medicines can cause liver and lung injury, and an etiological relationship between these injuries and Scutellariae Radix (ogon in Japanese) has been strongly suspected. Furthermore, mesenteric phlebosclerosis has been reported to be associated with long-term use of Kampo formulas containing Gardeniae Fructus (sanshishi in Japanese).

In Japan, all drugs inclusive of Kampo medicines causing adverse events, including suspected causal drugs and drugs for which a causal relationship cannot be ruled out, should be reported to the Pharmaceutical and Medical Devices Agency (PMDA) by pharmaceutical companies, attending physicians, or pharmacists who first identify them. The PMDA was established in 2004 and provides drug-safety information on their website (https://www.pmda.go.jp/english/index.html). In addition, the MHLW website has published adverse-event data reports on ethical drugs and over-the-counter drugs since July 30, 2003; these data were obtained from medical personnel reports investigated by the PMDA, which are released approximately every 4 months. Kampo medicines are also included in the information without exception.

We reported the adverse events associated with ethical Kampo formulations by analysis of the domestic adverse-event data reports of the Ministry of Health, Labor, and Welfare in Japan (https://doi.org/10.1155/2019/1643804).

We reviewed adverse effects of Kampo medicines (https://doi.org/10.2169/internalmedicine.6292-20).

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