Kampo Medicine - Current Research

Best Use of Hochuekkito against MRSA-infectious Diseases

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MRSA (methicillin-resistant Staphylococcus-aureus) is *Staphylococcus aureus* that is highly resistant to penicillin type β-Lactam antibiotics, typically methicillin. In Japan, a series of cases of MRSA infected inpatients (hospital-acquired infection) began to be reported in 1980's and medical institutions were working to find means to prevent and control MRSA. In the meantime Vancomycin and other antibiotics effective for MRSA were used; the number of newly infected people peaked in 1990s, and MRSA infections became a social problem.

At such times, a clinical report was published describing "MRSA turned out negative by the administration of Kampo medicine." This report created an event that not only gave a tremendous shock to medical personnel but also helped to provide people wide recognition of clinical efficacy of Kampo medicines.

Coincidental occurrence of MRSA dissipation and cure of pressure ulcer

This was reported by the neurosurgeon Dr. Masakazu Kitahara. Dr. Kitahara, having difficulty to treat pressure ulcer in his patient with MRSA, commenced the administration of *hochuekkito* which had reportedly been effective for the treatment of pressure ulcer. The ulcer improved day by day and was completely cured within about 45 days. Moreover, sputum examination showed non presence of MRSA. This result caused a twofold greater shock.

In the area of neurosurgery, a large percentage of patients are in conscious state with a weakened ability to defend against infection regardless of whether surgically treated or not. Thus, MRSA can often be detected in such patients. Prompted by the fact that MRSA disappeared in patients who received *hochuekkito,* he administered this formula to all consciousness-disturbed inpatients with MRSA. The result showed that MRSA dissipated in all patients in the dosing period of one to three months.

Thereafter, having realized the treatment effects of *hochuekkito*, Dr. Kitahara uses this formula for all inpatients from an early disease stage in anticipation of the formula's effects on infection prevention.

Effects of *hochuekkito* against MRSA

The survey during 1991 to 2005 by Dr. Kitahara showed that 56 out of 61 patients having MRSA detected in their sputa turned negative (91.8%) and the median time to turn to MRSA negative was 8.4 weeks.

Hochuekkito was administered to 196 consciousness-disturbed patients within a week from the onset, in anticipation of infection prevention. And then MRSA was detected in the sputa of 16 out of 196 patients, representing a detection rate of 8.2%. During the time that *hochuekkito* and other Kampo formulas were not being used, infections were confirmed in 98 out of 234 patients, representing an infection rate of 34.5%. The data indicates that the use of *hochuekkito* greatly inhibited infections.

Dr. Kitahara says that he realizes the use of *hochuekkito* from the early stage of admission to hospital is beneficial to managing the whole body of patients as well as controlling hospital-acquired infections.

About *hochuekkito*

It has been reported that *hochuekkito* has the activation of cell-mediated immunity[1)] and the ability to modulate the activity of NK cells by

changing the level of the activity – when the activity value is low, the activity is raised; and when the activity value is high, the activity is reduced. [2]And, it has also been reported that the findings from the use of this formula in the experiment with mice made leucopenic indicated prevention of pseudomonal infection, improvement of the ability to proliferate bone-barrow hematopoietic precursor cells, and improvement of hematopoietic cytokine production.[3]

It is known that exposures to physical and mental stresses reduce body resistance. On the other hand, it is suggested that *hochuekkito* improves the body resistance ability weakened by stresses. The administration of this formula to mice experimentally infected with Listeria reduced bacterial counts and significantly restored IFN-γ production compared to that of the non-administration group. In Listeria infected mice, depressed accumulation of macrophages in infected sites made a significant recovery by the administration of the formula. [4]

Hochuekkito is composed of 10 kinds of crude drugs, which, it has been confirmed, contain arginine. [5]Arginine is an amino acid, which supplementation is needed for pressure ulcer, wounds, or transmitted diseases.

References

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