

Hwa-Byung Treated by Using Ascending Kidney Water and Descending Heart Fire Pharmacopuncture: Three Case Studies

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Key Words

ascending kidney water and descending heart fire, Hwa-Byung, HBDIS, Korean medicine, pharmacopuncture

Abstract

Objectives: We report the results of three case studies on the clinical effect of ascending kidney water and descending heart fire (AKDH) pharmacopuncture on patients with Hwa-Byung.

Methods: This study involved three patients, all female, who had been admitted to a hospital of traditional Korean medicine and had been diagnosed as having Hwa-Byung by using the Hwa-Byung Structure Clinical Interview for DSM-IV. AKDH pharmacopuncture is administered by injecting pharmacopuncture at a specific acupoint to change from a state of water-fire disharmony to one of water-fire harmony. For our three patients, Hwangyeonhaedoktang (黃連解毒湯) pharmacopuncture was injected at GB21 and GB20 on both sides; a total of 0.4 cc was injected, with 0.1 cc being injected at each point. Fel ursi, Bezora bovis and moschus (BUM) pharmacopuncture was injected at CV17, CV12, and CV6; a total of 0.15 cc was injected, with 0.05 cc being injected at each point. Treatment was done daily. Progress was evaluated using the Hwa-Byung diagnostic interview (HBDIS), beck depression inventory (BDI), and numeric rating scale (NRS) scores.

Results: For the first patient (case 1), after treatment, the HBDIS score was reduced from 44 to 30 points, the BDI score from 37 to 14, and the NRS score from 10 to 7. For the second patient (case 2), after treatment, the HBDIS score was reduced from 41 to 27 points, the BDI score from 13 to 7, and the NRS score from 10 to 5. For the third patient (case 3), after treatment, the HBDIS score was reduced from 42 to 28 points, the BDI score from 12 to 9, and the NRS score from 10 to 4.

Conclusion: Ascending kidney water and descending heart fire pharmacopuncture treatment can be effective for improving ascending kidney water and descending heart fire energy and can be used to alleviate Hwa-Byung.

1. Introduction

The main symptoms of Hwa-Byung, which is known to be a chronic condition [1], are chest discomfort, hot flashes and palpitations. Sometimes, Hwa-Byung is also accompanied by insomnia, headache or unrest. Hwa-Byung is associated with emotions such as anger, so patients with Hwa-Byung do not adequately control their emotions and suddenly feel angry or depressed. Hwa-Byung often occurs in middle-aged or older women and in persons with low economic standing. It is a relatively common disorder and is found in 4.2% of the population [2]. The American Psychiatric Association described Hwa-Byung as being related to anger and especially to Korea's traditional sentiment [3]. The Association stated that it often occurs when feelings

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of anger are suppressed and that its symptoms are very diverse, e.g., insomnia, fatigue, depression, fear of death, panic, indigestion, anorexia, dyspnea, tachycardia, pain, and foreign body sensation [4].

In Korean medicine [1], which was developed based on a system of yin and yang (陰陽), an incongruity of energy is believed to be the cause of Hwa-Byung. The addition of Yin-Yang and the five elements, fire, wood, water, metal, and earth, are the basis of Korean medicine. The five elements correspond to internal organs. The heart corresponds to fire, and the kidneys correspond to water. The function of the heart is called heart fire (心火), and that of the kidneys is called kidney water (腎水). The energy of the body moves up and down, and heart fire (心火) and kidney water (腎水) are the axis of that up-and-down motion; thus, their interaction is a very important mechanism in health. If a problem occurs in the up-and-down motion of energy, the human body is in a state of disease [5]. Menopause symptoms are a good example. To help achieve and maintain harmony between heart fire (心火) and kidney water (腎水), practitioners use ascending kidney water and descending heart fire (AKDH) pharmacopuncture treatment [6].

Various treatments have been tried in Korean medicine to treat Hwa-Byung. For example, Melonis Calyx vomiting therapy [7], forests healing [8], music-listening intervention [9] and autogen training [10] have been tried and have been shown to have some effect on patients experiencing Hwa-Byung. In addition, pharmacopuncture has been used for that purpose. In Hwang's study [11], MOK pharmacopuncture was used to treat patients experiencing Hwa-Byung while in a study by Kim [12], placenta pharmacopuncture was used. In this paper, we report the cases of three patients experiencing Hwa-Byung who were treated with AKDH pharmacopuncture.

2. Material and Methods

This study included three patients, all women, who had been admitted to the hospital of traditional Korean medicine at Semyung University. The three patients complained of chest discomfort, anger, lethargy, depression, anxiety, etc. They were diagnosed as experiencing Hwa-Byung based on the results from the Hwa-Byung Structure Clinical Interview for DSM-IV.

AKDH pharmacopuncture was administered by injecting pharmacopuncture at a specific acupoint to change from a state of water-fire disharmony to a state of water-fire harmony. Hwangyeonhaedoktang pharmacopuncture was injected daily at GB21 and GB20 on both sides. A total of 0.4 cc was injected, with 0.1 cc being injected at each point. *Coptidis Rhizoma*, *Scutellariae Radix*, *Phellodendri Cortex* and *Gardeniae Fructus* are the raw material of the Hwangyeonhaedoktang pharmacopuncture. Fel ursi, Bezora bovis and moschus (BUM) pharmacopuncture was injected daily at CV17, CV12, and CV6. A total of 0.15 cc was injected, with 0.05 cc being injected at each point. Each pharmacopuncture were prepared in accordance with the prescribed method. This treatment was based on Pharmacopunctureology [13].

The effects of the pharmacopuncture treatment on the patients were evaluated using objective methods. The evaluation was done every two weeks by using the Hwa-Byung diagnostic interview (HBDIS), the beck depression inventory (BDI), and the numeric rating scale (NRS).

3. Three Case Reports

In the first case, a 57-year-old female visited out hospital on April 29, 2014. She complained of insomnia, anger, irritability, memory impairment, rapid heart beating, anxiety, depression, and back pain. She said the symptoms occurred after her son died. The son died during his study in the United States. She was angry that she had not heard of her son's death. The patient's medical history and other information were obtained (Table 1), and after an examination, the patient was admitted to the Acupuncture & Moxibustion Department at Semyung University Hospital of Oriental Medicine (Je-cheon, Korea). She was diagnosed as having Hwa-Byung and received AKDH pharmacopuncture treatment to relieve her symptoms. She also received acupuncture at BL56, BL57, and BL40 on both sides, as well as physical therapy. Hwalrak-tang and Dokhwalsokdan-tang were used for both plantar-and back-pain relief.

In the second case, a 60-year-old female visited our hospital on August 25, 2014. She complained of insomnia, anger, irritability, rapid heart beating, anxiety, and back and neck pain. She said the symptoms had occurred after her not receiving the money from a loan. Her family did not know that she had borrowed money. She could not tell anyone about that. The patient's medical history and other information were obtained (Table 1), and after an examination, the patient was admitted to the Acupuncture & Moxibustion Department at Semyung University Hospital of Oriental Medicine (Je-cheon, Korea). She was diagnosed as having Hwa-Byung and received AKDH pharmacopuncture treatment to relieve her symptoms. She also received acupuncture at BL56, BL57, and BL40, on both sides, as well as physical therapy. Hwalrak-tang and Dokhwalsokdan-tang were used for the relief of both back and neck pain.

In the third case, a 59-year-old female visited out hospital on November 3, 2014. She complained of chest discomfort, insomnia, anger, irritability, rapid heart beating, anxiety, and facial palsy. She said the cause of the symptoms was stress from her husband's coercive attitude. The patient's medical history and other information were obtained (Table 1), and after an examination, the patient was admitted to the Acupuncture & Moxibustion Department at Semyung University Hospital of Oriental Medicine (Je-cheon, Korea). She was diagnosed as having Hwa-Byung and received AKDH pharmacopuncture treatment to relieve her symptoms. She also received acupuncture at ST1, ST2, ST3, ST4, and GB14 on both sides, as well as physical therapy. Ligigeopoongsan and Bogigeopoongsan were used for facial-palsy relief.

Table 1 Medical histories of the three cases and other information

	Case 1	Case 2	Case 3
Name	Kim OO	Song OO	Kim OO
Age (year)	57	60	59
Sex	Female	Female	Female
Chief Complaint (C/C)	insomnia, anger, irritability, memory impairment, heart beating, anxiety, depression, back pain	insomnia, anger, irritability, heart beating, anxiety, back and neck pain.	chest discomfort, insomnia, anger, irritability, heart beating, anxiety, facial palsy
Onset (O/S)	2012.12	2014.07.28.	Chronic. 2014.11.02 (further symptoms)
Cause of disease	Stress (son's death)	Stress (not receiving loan money)	Stress (husband's coercive attitude)
Present Illness (P/I)	Western medical treatment, taking pills regularly	None	Western medical treatment, taking pills regularly
Past medical history (P/H)	Herniated intervertebral disc (HIVD) of L and C spine (2011) Varicose veins (2012) Stress disorder (2012.12)	None	Tuberculosis (1974)
Family's medical history (F/H)	Mother: diabetes	None	None
Hospitalization period	2013.04.29 - 2013.05.27	2014.08.25 - 2014.09.27	2014.11.03 - 2014.12.03

4. Results

The HBDIS score for case 1 was 44 when she was admitted for the first time, and she was diagnosed as experiencing Hwa-Byung. Her BDI score was 37, which indicates severe depression. Her NRS score, indicating her level of discomfort, was 10 when she was admitted for the first time. After 2 weeks, her HBDIS score was 38, her BDI score was 22, and her NRS score was 8. After 4 weeks, those scores were 30, 14, and 7, respectively (Table 2).

The HBDIS score for case 2 was 41 when she was admitted for the first time, and she was diagnosed as experiencing Hwa-Byung. Her BDI score was 13, which indicates severe depression, and her NRS score, indicating her discomfort, was 10 when she was admitted for the first time. After 2 weeks, her HBDIS score was 39, her BDI score was 11, and her NRS score was 7. After 4 weeks, those scores were 27, 7, and 5, respectively (Table 3).

The HBDIS score for case 3 was 42 when she was admitted for the first time, and she was diagnosed as experiencing Hwa-Byung. Her BDI score was 12, which indicates severe depression, and her NRS score, indicating her discomfort,

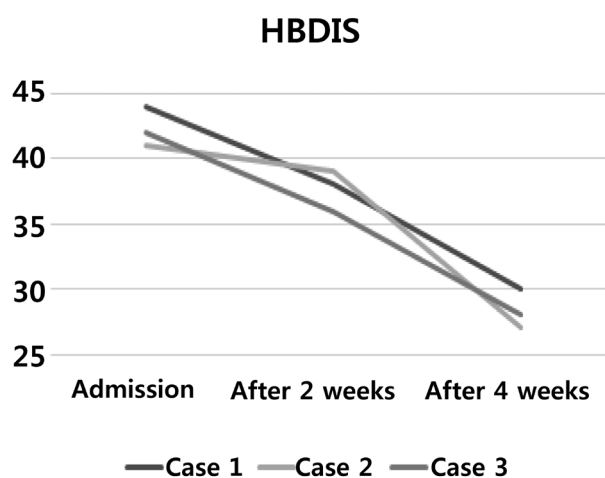


Figure 1 HBDIS scores for the three cases: on admission, after two weeks, and after 4 weeks.

HBDIS, Hwa-Byung diagnostic interview.

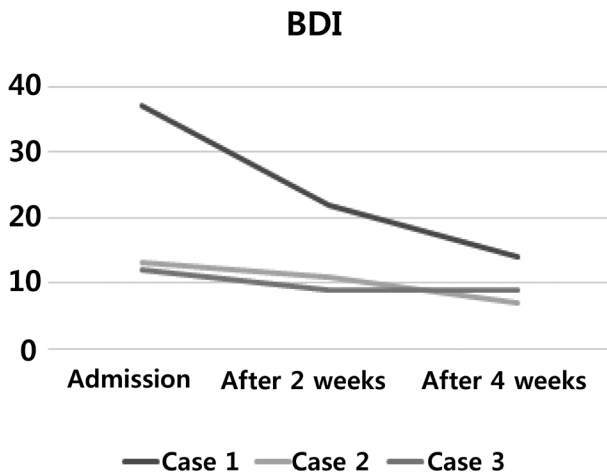


Figure 2 BDI scores for the three cases: on admission, after two weeks, and after 4 weeks.
BDI, beck depression inventory.

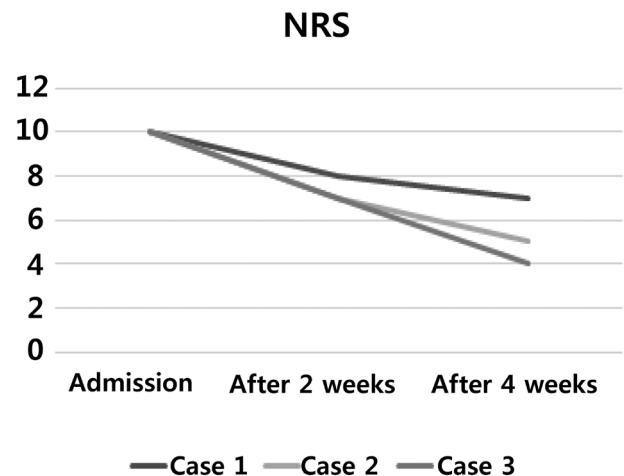


Figure 3 NRS scores for the three cases: on admission, after two weeks, and after 4 weeks.
NRS, numeric rating scale.

Table 2 HBDIS, BDI and NRS scores for case 1

	Before Treatment	After 2 week	After 4 weeks
A. Core physical symptoms of Hwa-Byung	6	6	5
B. Core psychological symptoms of Hwa-Byung	Yes	Yes	Yes
C. Relative physical symptoms of Hwa-Byung	14	13	6
D. Relative psychological symptoms of Hwa-Byung	15	12	12
E. Negative effect on daily life	3	2	2
F. Causative stress	3	3	3
G. Medically unexplained symptoms	3	3	1
	44	38	30
BDI	37	22	14
NRS	10	8	7

HBDIS, Hwa-Byung diagnostic interview; BDI, beck depression inventory; NRS, numeric rating scale.

was 10 when she was admitted for the first time. After 2 weeks, her HBDIS score was 36, her BDI score was 9, and her NRS score was 7. After 4 weeks, those scores were 28, 9, and 4, respectively (Table 4). In all cases, the HBDIS scores decreased during treatment. In particular, after 4 weeks, the characteristic symptoms of Hwa-Byung had decreased below the diagnostic criteria (Fig. 1), the BDI scores decreased during treatment in all cases. After 4 weeks, the BDI score for case 1 indicated a change from a severely depressive state to a mildly depressive state whereas the BDI scores for cases 2 and 3 indicated changes from a mildly depressive state to normal (Fig. 2). In all cases, the NRS scores also decreased during treatment. After 4 weeks, the

discomfort of patient 1 had decreased by 30% and the discomforts of patients 2 and 3 had decreased by more than 50% (Fig. 3).

5. Discussion

The main cause of the Hwa-Byung is mental stress. If stress is not adequately resolved, the result can be Hwa-Byung. Early symptoms of Hwa-Byung are anger and anxiety. Over time, Hwa-Byung may be accompanied depression [14]. From the Korean medical perspective,

Table 3 HBDIS, BDI and NRS scores for case 2

	Before Treatment	After 2 week	After 4 weeks	
HBDIS	A. Core physical symptoms of Hwa-Byung	6	5	4
	B. Core psychological symptoms of Hwa-Byung	Yes	Yes	No
	C. Relative physical symptoms of Hwa-Byung	13	11	6
	D. Relative psychological symptoms of Hwa-Byung	13	12	10
	E. Negative effect on daily life	3	3	3
	F. Causative stress	3	3	3
	G. Medically unexplained symptoms	3	2	1
	41	39	27	
BDI	13	11	7	
NRS	10	7	5	

HBDIS, Hwa-Byung diagnostic interview; BDI, beck depression inventory; NRS, numeric rating scale.

Table 4 HBDIS, BDI and NRS scores for case 3

	Before Treatment	After 2 week	After 4 weeks	
HBDIS	A. Core physical symptoms of Hwa-Byung	6	5	3
	B. Core psychological symptoms of Hwa-Byung	Yes	Yes	Yes
	C. Relative physical symptoms of Hwa-Byung	14	12	7
	D. Relative psychological symptoms of Hwa-Byung	13	12	11
	E. Negative effect on daily life	3	3	3
	F. Causative stress	3	3	3
	G. Medically unexplained symptoms	3	1	1
	42	36	28	
BDI	12	9	9	
NRS	10	7	4	

HBDIS, Hwa-Byung diagnostic interview; BDI, beck depression inventory; NRS, numeric rating scale.

the human body is balanced by five energy components, wood (木), fire (火), earth (土), metal (金), and water (水) energy, which should be in harmony. In Korean medicine, Hwa-Byung is classified as a fire-energy (火)-related disease [15]. Cold is a concept that includes disorders of the autonomic nervous system and hormonal imbalances that are caused by drugs. Hwa-Byung is a concept that includes mental disorders, disorders of the autonomic nervous system, and hormonal imbalances, all of which are caused by fire (火) and water (水) energy [16]. AKDH pharmacopuncture treatment can restore the balance. Thus, this case report is an attempt to show that AKDH pharmacopuncture treatment can relieve the symptoms of patients experienc-

ing Hwa-Byung. In fact, the significance of this study is that data are provided, demonstrating that the symptoms of patients experiencing Hwa-Byung symptoms can, indeed, be relieved by using AKDH pharmacopuncture treatment.

The HBDIS used in this study is a tool designed to diagnose Hwa-Byung [15]. The criteria for diagnosis are the main symptoms of Hwa-Byung, such as chest discomfort, anger, and resentment. The HBDIS has 7 items from A to G. A has questions about the core physical symptoms of Hwa-Byung, and if sum of the scores for the questions is 4 or more, the patient is diagnosed as experiencing Hwa-Byung. B is a question about the core psychological symptoms of Hwa-Byung, and if the answer is No, the patient

is not experiencing Hwa-Byung. C has questions about the relative physical symptoms of Hwa-Byung, and if one or more answers are 3 points or more, the patient is diagnosed as experiencing Hwa-Byung. D has questions about the relative psychological symptoms of Hwa-Byung, and if one or more answers are 3 points, the patient is diagnosed as experiencing Hwa-Byung. E is a question about the negative effect on daily life, and if the score is 2 or more, the patient is diagnosed as experiencing Hwa-Byung. F is a question about causative stress, and if the score is 2 or more, the patient is diagnosed as experiencing Hwa-Byung. G is a question about medically unexplained symptoms, and if the score is 2 or more, the patient is diagnosed as experiencing Hwa-Byung.

The BDI used in this study is a depression diagnostic scale developed in 1961 [17]. The questionnaire addresses cognition, emotion, motivation, and physical symptoms. The total score is the sum of the scores for the individual items, and the highest score is 63, with 0 - 9 points indicating normal, 10 - 15 mild depression, 16 - 23 middle depression, and 24 - 63 severe depression. The NRS is a subjective index of pain, but in this study, it was used as an indicator of discomfort. We observed changes based on discomfort at admission.

In case 1, the patient began to experience symptoms about five months before admission. Her main symptoms began after her son died. She received Western medical treatment at a hospital and took medication, but that treatment was ineffective. After AKDH pharmacopuncture treatment, her symptoms were mildly reduced. After four weeks of treatment, some items were outside the range for a patient experiencing Hwa-Byung. The largest score difference appeared in relative physical symptoms, and her state of severe depression had changed to one of mild depression.

In case 2, the patients began to experience symptoms about 2 month before admission. Her main symptoms began with a money problem, and she had never been treated for those symptoms. After AKDH pharmacopuncture treatment, her symptoms were mildly reduced. After four weeks of treatment, some items were outside the range for a patient experiencing Hwa-Byung. The largest score difference appeared in relative physical symptoms, and her state of mild depression changed to normal.

In case 3, the patient began to experience symptoms years before admission. Her main symptoms began because of her husband. She received Western medical treatment at a hospital and took medication, but that treatment was ineffective. After AKDH pharmacopuncture treatment, her symptoms were reduced. After four weeks of treatment, some items were outside the range for a patient experiencing Hwa-Byung. The largest score difference appeared in relative physical symptoms, and her state of mild depression changed to normal.

All of these patients were commonly complaining of insomnia, anger, irritability, rapid heart beating, and anxiety, which, according to a Korean medicine point of view, are major symptoms of Hwa-Byung resulting from an imbalance between the heart and the kidney energies. Because the causes of Hwa-Byung are thought to be associated with the AKDH system, AKDH pharmacopuncture treat-

ment should relieve such an imbalance. Based on that, we suggest that AKDH pharmacopuncture treatment should be effective for treating the symptoms of patients experiencing Hwa-Byung. However, studies on the effectiveness of AKDH pharmacopuncture in treating the symptoms of patients experiencing Hwa-Byung are insufficient. Thus, we performed this study on the use of AKDH pharmacopuncture for that purpose.

Although this study has a major limitation in that it considers only three cases, it did confirm the feasibility of using AKDH pharmacopuncture for treating the symptoms of patients experiencing Hwa-Byung. However, more systematic research and longer follow-up are needed. Nevertheless, the major finding of this study, which is of clinical importance, is that AKDH pharmacopuncture can be effective for improving AKDH energy; thus, it should also be effective for alleviating the symptoms of patients experiencing Hwa-Byung.

Conflict of interest

The authors declare that there are no conflicts of interest.

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