

# A Case of Korean Medicine Treatment for Pregnant Woman with Panic Disorder – From Early Pregnancy to Delivery

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**Objectives:** The purpose of this study was to evaluate the efficacy and safety of Korean medicine treatment for pregnant women with panic disorder.

**Methods:** We treated pregnant women with panic disorder with Acupuncture, Herb extract granules, and Korean medicine psychotherapy. PDSS, BAI, and BDI were evaluated every two months.

**Results:** PDSS was reduced from 24 points to 8 points. BAI was reduced from 35 points to 10 points. BDI was reduced from 22 points to 8 points. Mental and body symptoms were also reduced. Both mother and the baby were healthy after delivery. No specificities or adverse effects were reported during the entire treatment.

**Conclusions:** Korean medicine treatment may be effective and safe to control symptoms of pregnant woman with panic disorder.

**Key Words:** Pregnant women, Panic Disorder, Korean medicine, Efficacy, Safety.

## I. INTRODUCTION

Panic disorder is a type of anxiety disorder characterized by repeated and unexpected panic attacks. Panic attacks appear suddenly, and patients experience severe fear and discomfort that reaches their peak within 10 minutes, accompanied by at least four out of the 13 physical or cognitive symptoms such as palpitations, dyspnea, chills, breathlessness, choking feeling, chest tightness, and fear of death<sup>1)</sup>.

In the past, symptoms of affective disorder or anxiety disorder were thought to decrease during pregnancy<sup>2,3)</sup>, but in pregnancy, severe adverse symptoms or behavioral symptoms may be more frequent<sup>4)</sup>, and hormonal changes may further complicate the underlying psychiatric aspects<sup>5)</sup>.

Although the incidence or recurrence of mental illness in pregnant women is relatively high, it is estimated that only 5.5% receive treatment<sup>6)</sup>. In addition, when a patient who taking medication due to mental disorder is pregnant, the patient is likely to stop medication due to exposure to the drug. Especially, if the patient is abruptly stopped, the risk of the symptom worsening or recurrence can be increased<sup>7,8)</sup>. In this situation, the intervention of complementary and alternative medicine may be actively considered.

In Korea, there have been reports on the clinical analysis of herbal medicines during pregnancy<sup>9-12)</sup>, survey<sup>13)</sup> and review study<sup>14)</sup> of acupuncture. However, there have been no reports of mental disorders including panic disorder during pregnancy.

With this background, the author reports a case of panic disorder of pregnant women treated with acupuncture, herbal extract granules, and Korean medicine psychotherapy in all stages from the early pregnancy to the delivery.

## II. CASE

### 1. Patient information

Female, 37 years old, housewife

### 2. Chief complaints

Sensations of shortness of breath, palpitation, intense fear of dying, abdominal pain

### 3. Onset of symptoms

July 14, 2010 (in remission since April 2011, recurred on July 11, 2016)

### 4. Current medical history

She had the first panic attack in 2010 and received 10 months of psychotropic medication. She had a chemical abortion in August 2015. and was pregnant again in 2016, but the panic disorder resumed after she heard about the possibility of miscarriage in June. She was aborted again in June 29, 2016. and underwent dilation & curettage. She received 3 months of local Korean medicine clinic treatment, but symptoms began to deepen around November. The pregnancy was confirmed at November 24, 2016. and she visited our hospital for intensive Korean medicine treatment.

### 5. Past medical history

1) Abortion: Chemical abortion in August 2015, missed abortion in July 29, 2016.

2) Family history: None

### 6. Current medication

1) Buspirone 15 mg 1T#1 (anxiolytic)

### 7. Social history

The patient is the second of three sisters. She is popular and has a lot of people around her since her childhood, because of her sociable and vigorous personality.

Her father had been violent to both his mother and the three sisters since the business became difficult because of fraud. He had a morbid suspicion about his wife's chastity. He died 20 years ago.

She married her husband 2 years ago, after 13 years of love. She lived independently after marriage for a while, but with her husband's proposal, she lived with her mother and sister again.

Elder sister had married early and divorced several years ago. She did not want to take care of her mother and younger sister. Younger sister was a longtime depressed patient, and She became a tetraplegic with suicide attempts six years ago. The patient had a great sense of guilt for her sister, but also had a grudge against having to care her sister.

## 8. Anamnesis

1) Appearance: 162 cm/57 kg, the facial complexion is a little bit white.

2) Appetite and digestion: Fine

3) Sleep: shallow sleep tendency, usually 2 awakeness.

4) Excretion: Fine

5) Pulse diagnosis: Tense and rapid (弦數)

6) Tongue diagnosis: Pink tongue with exfoliative white coating (淡紅 薄白苔)

7) Vital sign: Blood pressure of 120/80 mmHg, pulse 87 times/minute, respiration rate 20 times/minute, body temperature of 36.3°C

8) Smoking history: None

9) Drinking history: None

## 9. Diagnosis

Panic Disorder

## 10. Korean medicine diagnosis

We diagnosed the symptoms as confused state of heart and mind (心神惑亂), indigestion due to congestion of liver-Qi and impairment of spleen (肝鬱脾虛), and dual deficiency of the heart and spleen (心脾

兩虛) according to the time.

## 11. Duration of treatment

From November 24, 2016 to August 4, 2017 (for 254 days)

The patient was instructed to visit the clinic regularly once a week, and was encouraged to visit the hospital at any time when symptoms are severe to endure.

## 12. Treatment

### 1) Herb medicine (extract granules)

(1) Gammaegdaejo-tang (甘麥大棗湯, TJ-72) 3 g bid: From November 24, 2016 to December 16, 2016 (for 23 days)

(2) Danggwijagyag-san (當歸芍藥散, TJ-23) 3 g bid: From December 16, 2016 to February 21, 2017 (for 68 days)

(3) Gamigwibi-tang (加味歸脾湯) 3 g bid: From February 21, 2017 to August 4, 2017 (for 165 days)

(4) Ondam-tang (溫膽湯) 3 g p.r.n.: 2017.04.15.~ 2017.08.04.

### 2) Acupuncture

Acupuncture (0.20×30 mm disposable acu needle; Dong Bang Acupuncture Factory) was administered each session. Baekhoe (百會; GV20), Pungji (風池; GB20), Hapmok (合谷; LI4), Gokji (曲池; LI11), Sinmun (神門; HT7), Naegwan (內關; PC6), Sameumkyo (三陰交; SP6), Taechung (太衝; LR3) were used for treatment. Needle retention time was set at 20 minutes.

### 3) Psychotherapy

Based on Jieon-Goron therapy (至言高論療法), we have selected the appropriate treatment such as Yiyeong-Byunqi therapy (移精變氣療法), Ohji-Sangseung therapy (五志相勝療法), for her condition, and per-

**Table 1.** The Change of Evaluation Score

Evaluation tool	Score						
	First visit	8 weeks of pregnancy	16 weeks of pregnancy	24 weeks of pregnancy	32 weeks of pregnancy	Right after delivery	3 months after delivery
PDSS*	24	22	16	19	12	10	8
BAI**	35	31	20	22	14	12	10
BDI***	22	20	14	17	12	9	8

PDSS\*: Panic Disorder Severity Scale. BAI\*\*: Beck Anxiety Inventory. BDI\*\*\*: Beck Depression Inventory.

formed for 30 minutes (or more) every session.

### 13. Instruments of evaluation

#### 1) Panic Disorder Severity Scale (PDSS)<sup>15)</sup>

PDSS, developed by Shear et al., measures the severity of panic disorder and comorbidity using 7 items. Each item is rated on a 5-point scale ranging from 0 to 4 and the total scores indicates the degree of panic disorder symptoms. We used the Korean version of the Panic Disorder Severity Scale (PDSS), which was translated by Kim et al. in 2001 with proven reliability and validity.

#### 2) Beck Anxiety Inventory (BAI)<sup>16)</sup>

BAI is a tool for measuring the degree of anxiety and consists of 21 items that include the cognitive, emotional, and physical domains of anxiety. Each question is scored from 0 to 3, and the total score is used to determine the severity of anxiety; 22~26, 27~31, and 32 points or more means moderate to severe (requiring observation and intervention), very severe, and extremely severe levels of anxiety.

#### 3) Beck Depression Inventory (BDI)<sup>17)</sup>

This self-report questionnaire, developed by Aaron T. Beck, consists of 21 items, including cognitive, emotional, motivative, and physical domains to assess the presence and severity of depression. Each item is scored on a 4-point scale ranging from 0 to 3. 0~9, 10~15, 16~23, 24~63 points indicates no depression,

mild, moderate, and severe depression, respectively. We assessed these scales every 8 weeks since pregnancy, and finally followed up at 3 months postpartum (Table 1).

### 14. Catamnesis (clinical course and outcome)

#### 1) a first-time treatment

After confirming her pregnancy, she was very nervous when she explained that she should stop taking etizolam, which relieved her when symptoms were severe. Emotional ups and downs during the day were too great, and she complained that her anticipatory anxiety just before get asleep was the hardest.

#### 2) 2~6th weeks of pregnancy

She had no symptoms on her 4 day trip to Hong Kong, but after trip, she became uneasy again after returning home.

She talked about her sister's suicide attempts and her mother's new lover. She admitted the feelings of ambivalence between guilt and resentment, We led her to look at her desires to be recognized for her sacrifices, and decide to ask direct praise to family.

After 4 weeks of pregnancy, she became more stabilized, and symptoms did not occur even if there was a precursor. From the sixth week, the legs were loosened and the abdomen became tickling and tightening, and the purple color on the tongue became more striking. The prescription was changed to Danggwijagyag-san (當歸芍藥散).

### 3) 7~10th weeks of pregnancy

She was worried that she would have problems next month because of her memory of fetus's heartbeat during her last pregnancy. In addition, since the puppy suddenly became hospitalized, severe abdominal pain and diarrhea became more frequent.

She was relieved of the emotional ups and downs from the 9th week of pregnancy, and was feeling refreshing and lively in morning. At 9th week, buspirone was decreased from 1T to 0.5T, and one dose per day was reduced by one in every 2 days at 10th week. The anticipating anxiety just before falling asleep was relatively maintained.

### 4) 11~16th weeks of pregnancy

The results of the first-stage congenital anomaly test were normal. No problems occurred when she occasionally took medication. She hired a caregiver to take care of her younger sister, so she felt less tired. She was pleased with the good treatment progress. We praised her own insight and considerations to others, and the resulting improvement in family relationships.

### 5) 17~20th weeks of pregnancy

Her abdominal symptoms had disappeared, but she became more difficult to fall asleep because of unstoppable thoughts. She expressed that the depth of sleep and relief increased greatly after prescription change with Gamigwibi-tang (加味歸脾湯).

She was diagnosed with a chromosome 15 abnormality in the nifty test at the 16th week of pregnancy and told about the possibility of Angelman syndrome or Prader-Willi syndrome. She was nervous because she had an abortion over chromosome 22 abnormality at her last pregnancy and had no weight gain for more than 10 days after the test. We comforted the negative results of the test and made sure that we did not lose hope for unconfirmed facts.

### 6) 19~22nd weeks of pregnancy

Thereafter, it was found to be normal as a result of the inspection error judgment at the reexamination. Despite the normal results, as her anxiety persisting, she started to blame her husband for his minor actions "You turned on my panic attack switch again.". We told the patient that her husband is really helping her and enduring himself, so she should especially praise him. When her husband heard it and cried that he had the only understanding of his mind, she was saddened by him, and her feelings of anger were diminished.

From the 20th weeks of pregnancy, we recommended her to go to the pregnancy yoga class.

### 7) 23~24th weeks of pregnancy

Since suffering from colds and nasal congestion, the frequency and intensity of anxiety attacks significantly increased. She visited the University Hospital ER one night at the most severe day, but returned home without any treatment. In psychiatry clinic, buspirone was increased to 45 mg/day and escitalopram 10 mg/day was additionally prescribed. She visited our clinic four times a week for two weeks, and said that after acupuncture treatment, it was as light as if the membranes were stripped from the lungs. We conducted the breathing meditation we taught together with each visit. Ondam-tang (溫膽湯) was prescribed as a PRN medicine so that it could be taken when she feels strong anxiety.

### 8) 25~28th weeks of pregnancy

The days passed without anxiety. When strongly unstable, taking Ondam-tang (溫膽湯) was effective, and after that, it was relieved to just keep the medicine like charm.

She got the ideas such as 'I'm tired of my baby', 'I wish I could get rid of my stomach', and thought about what to do if she had a postpartum depression.

To accept anxiety as a defensive mechanism for the fetus, we tried to switch the viewpoint of the situation from the victim to the protagonist, enduring with the fetus rather than being hard for the fetus.

As her gestational weeks grew, she was hard-pressed by unstoppable thinking that she would become increasingly uncomfortable. We confirmed that the gestational weeks of all the others in the yoga class was higher than her, and she found that very few terminal pregnancies were seriously distressed by worsening symptoms.

From the 28th week, we decreased Escitalopram to half dose.

### 9) 29~32nd weeks of pregnancy

Pregnancy pruritus temporarily developed and then disappeared after one acupuncture treatment.

She started to take Escitalopram only intermittently, accepting the western psychiatrist's suggestions. After 5 days, the anxiety temporarily deepened, but it got better again.

We ordered her to action immediately instead of feeling guilty with worrying about trivial things like 'whether I could choose to take the medicine' or 'whether I open or close the window'. The expression 'optimization rather than hesitation and whim' relieved and encouraged her.

### 10) 33~36th weeks of pregnancy

She was a bit nervous when breathing in hot and humid weather, but she could bear it. She was relieved and rejoiced that she had increased her fetal weight to 3.5~3.6 kg. At consultation, she said "I had worried about all things unnecessarily in advance. I think I could be more comfortable now because I end up worrying ahead of time."

Sometimes when she had difficulty in falling asleep, taking Gamigwibi-tang (加味歸脾湯) made her sleep immediately. At 34 weeks, she completely stopped

taking Escitalopram.

### 11) 37th weeks of pregnancy~delivery

The condition was good without a panic attack until delivery. July 27, 2017. After 16 hours of labor, she was delivered by caesarean section. The fact that she made a decision to cesarean section without ending the natural delivery remained like guilt.

When she entered the postpartum care center, mild anxiety resumed because of being frustrated by the ban on visiting and the hot air. Considering her panic disorder, she was allowed more outings than others for her outpatient treatment.

Still, she has been able to sleep deeply after the delivery. she felt like she have finished her big task. There was almost no breathing problem and anxiety. The treatment was terminated due to changing the location for postpartum care. No specificities or adverse effects were reported during the entire treatment.

### 12) 3 months after delivery

She stopped taking all medicines for breastfeeding. The intermittent precursors were within 1 minute in all 4 times for 3 months, and it did not reach symptom. Both baby and mother were healthy.

## III. DISCUSSION

In Korean medicine, panic disorder is recognized in the categories of fright palpitations (驚悸), fearful throbbing (怔忡), and diagnosed and treated according to etiology such as deficiency with timidity of heart and gallbladder (心膽虛怯), heart blood deficiency (心血虧損), heart qi deficiency (心氣不足), liver-kidney yin deficiency (肝腎陰虛), phlegm-fluid retention (痰飲內停), and heart blood stasis (血脈瘀阻)<sup>18)</sup>.

This case report shows a significant improvement of 37-year-old pregnant women with panic disorder who mainly complained sensation of shortness of breath,

palpitation, intense fear of dying, and abdominal pain. She was treated by herbal extract granules, acupuncture and Korean medicine psychotherapy.

At her first visit, she wanted to be treated, but she was afraid that herbal medicine would harm pregnancy. We studied domestic and international research data on herbal medicines safety during pregnancy, and decided to use granules instead of decoction to ease taking and reduce the burden.

At the beginning, we regarded the patient as anxious, crying, laughing, changing emotions big and fast, often sighing, to Yingbi (孕悲)-Jangjo (藏躁) during pregnancy<sup>18)</sup>, prescribed Gammaegdaejo-tang (甘麥大棗湯), which is listed in 『Geumgweolyag (金匱要略)』.

Since then, prescription was changed to Danggwijagyag-san (當歸芍藥散) for the tendency of anemia and edema, and severe abdominal pain. Danggwijagyag-san (當歸芍藥散) was first described in 『Geumgweolyag (金匱要略)』, which treats squeezing abdominal pain during pregnancy, used in a variety of gynecological diseases caused by blood deficiency (血虛) and blood stasis (瘀血), as well as threatened abortion<sup>19)</sup>.

After abdominal pain had disappeared, the prescription was changed to Gamigwibi-tang (加味歸脾湯) to focus on improving insomnia and reducing too much concerns. Gamigwibi-tang (加味歸脾湯) is to treat deficiency of heart and spleen (心脾兩虛) caused by too much thinking and concern (思慮過多), and can be used for various psychiatric diseases such as anxiety, depression, insomnia, and forgetfulness<sup>18)</sup>.

Ondam-tang (溫膽湯), it is effective to control mood symptoms such as anxiety and astonishment, and gastrointestinal symptoms caused by phlegm<sup>18)</sup>. So, it was prescribed for the relief of intermittent strong fear with nausea.

In this case, psychotherapy focused on the removing the concerns of the patient, increasing the mind to overcome the disease, and reducing the morbid psychological pressure. The preliminary meaning of

‘Jieon-Goron (至言高論)’ in ‘Jieon-Goron therapy (至言高論療法)’, which is the most basic therapy, is ‘extremely logical and high opinion’. This therapy involves making patients feel warm through dialogue, persuading, assuring, and retraining patients<sup>18,20)</sup>. Because the patient had a lot of her own thoughts, questions and answers to her problems and tended to want to be confirmed by the doctor, the doctor’s support, encouragement, and supplementary explanation made a great effect.

Yijeong-Byunqi (移情變氣) means changing (變) qi (氣) by moving (移) essence (精). Through displacing or dispersing mental activity focused on illness-related thoughts, Yijeong-Byunqi therapy (移情變氣療法) aims to turn one’s attention on the other way, to switch and refresh one’s emotional and physical conditions<sup>18,20)</sup>.

Because the patient was familiar with turning attention away from one rather than concentrating on one persistently, Yijeong-Byunqi therapy (移情變氣療法) using the surrounding objects, made it possible to switch her psychological and physical symptoms quickly.

Ohji-Sangseung therapy (五志相勝療法) based on the theory of the interrelationships of the five elements, it is to treat illness by applying the sequential subjugations of the five emotions. it literally means ‘be aware of the five elements, beat one another’. According to the principle the five elements, wood, fire, earth, metal and water respectively correspond to anger, joy, thought, sorrow and fear. It can be explained by the principle of ‘sorrow beats anger (悲勝怒)’ that the patient soothed her anger by the assimilation of the husband’s sorrow<sup>18,20)</sup>.

The strength of this case is that it is the first case report on the treatment of panic disorder in pregnant women and it covers the entire process from pregnancy to childbirth. However, since it is only one example, it is very limited to demonstrate effectiveness and safety of Korean medicine treatment because the

combined treatment of the psychotropic medicines was included. In the future, more studies should be continued to verify the effectiveness and safety of Korean medicine treatment for pregnant women with panic disorder.

#### IV. CONCLUSION

Through the review of a case of pregnant woman patient with panic disorder, the following conclusions were obtained.

1. Korean medicine treatment reduced the symptoms in pregnant woman with panic disorder, and there were no adverse effects during the course of the treatment.
2. Korean medicine treatment can be effective and safe for counteracting symptoms of panic disorder.

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