

The Formula Presentation of Xiao Jian Zhong Tang (Minor Construct the Middle Decoction)

Eran Even

Abstract

The following article is based on research conducted for my doctoral dissertation and on many years of study with my advisor Professor Huang Huang (黄煌教授) at the Nanjing University of Chinese Medicine. The purpose of this paper is to present the formula presentation (方证) of *Xiao Jian Zhong Tang* (小建中汤, Minor Construct the Middle Decoction) and elucidate the correct patient population, symptomology and diseases most suitable to this formula.

Keywords

Xiao Jian Zhong Tang, Minor Construct the Middle Decoction, Formula Presentation, Professor Huang Huang, Jing Fang

In order to study the formula presentation (方证) of *Xiao Jian Zhong Tang* (小建中汤, Minor Construct the Middle Decoction) and elucidate the correct patient population, symptomology and diseases most suitable to this formula, the cases of Professor Huang Huang (黄煌教授) were analysed. For several years nearly all of Huang Huang's clinical encounters have been recorded by students and kept in an electronic database. All cases tagged as 'Xiao Jian Zhong Tang' ranging from 2010 to 2018 were collected. In total 467 cases were collected. The following inclusion and exclusion criteria were then applied:

1. Cases where the formula was used alone on the initial consultation were analysed.
2. Cases where the formula was used alone or with a

small number of additions (three herbs or fewer) on follow up visits were also analysed in relation to the modifications, number of packages used and method of administration.

3. Cases in which *Xiao Jian Zhong Tang* was modified in any way at the initial visit, or was modified with more than three additions or combined with another formula were excluded.

In total 335 cases remained (71.7 per cent), where *Xiao Jian Zhong Tang* was prescribed alone on the initial consultation. From these 335 cases, a total of 575 visits were recorded. These cases were deemed to have achieved positive outcomes as on follow up visits *Xiao Jian Zhong Tang* was

re-prescribed but with slight modifications, suggesting that the initial pattern identification was correct. In all of these cases Professor Huang Huang kept all original six herbs in the formula, the only exception being the substitution of Mai Ya (*Hordei Fructus germinatus*) for Yi Tang (Maltosum). All translations from Chinese are by the author, unless otherwise specified.

The concept of a formula presentation

As the primary objective of this paper is to identify the formula presentation (*fang zheng* 方证) of *Xiao Jian Zhong Tang*, an introduction to the concept of ‘formula presentation’ and to its history and relevance is needed. The formula presentation is a theoretical model of herbal formula application that lies between the herbs and formulas on one hand, and the disease pattern on the other. It is the arrow aiming for the target in relation to disease treatment. The formula presentation is the guiding principle behind how a formula is selected. ‘Zheng’ (证) refers to evidence, proof, results or efficacy (证验), and also symptoms (症状). Therefore, when all these definitions are taken together, the formula presentation refers to a formula’s key presentation, or instance where a formula displays its main efficacy or results.

Currently in China, many consider the earliest recording of this concept to be found in the *Wu Shi Er Bing Fang* (五十二病方, Prescriptions for Fifty-Two Diseases),¹ yet many scholars believe that it wasn’t until Zhang Zhong-Jing’s writings (张仲景) that the concept really took hold, only to be further developed by later generations of physicians. The idea of a formula correspondence (方证相应) is seen in the post-script for line 317 of the *Shang Han Lun* (伤寒论, Treatise on Cold Damage) which states:

[Only when] the disease corresponds to the formula [can the formula] be taken.²

病皆与方相应者，乃服之。³

This line offers the most succinct explanation and definition of a formula presentation and implies that all diseases have a corresponding formula, a ‘formula presentation.’ The *Shang Han Lun* also refers to specific ‘herb presentations’ (药证) such as a ‘Chai Hu (*Bupleuri Radix*) presentation’ (柴胡证), or a ‘Gui Zhi (*Cinnamomi Ramulus*) presentation’ (桂枝证). In addition, line 16 of the *Shang Han Lun* states:

Observe the pulse and signs, know what error [you] have committed, [and then] treat according to the signs.⁴
观其的脉证，知犯何逆，随证治之。

The *Shang Han Za Bing Lun* (伤寒杂病论, Treatise on Cold Damage and Miscellaneous Diseases) was arguably the first text to suggest not just the concept of a formula presentation, but also the principle that became known as ‘determining treatment by patterns identified’ (辨证论治), which lays importance on not just simply knowing which formula treats specific signs, but also on having a clear understanding of the underlying pathomechanism involved. Once the pattern is clearly understood, the choice of the correct formula can be made. According to Professor Huang Huang (黄煌教授), once a formula presentation is clearly identified, not only will the formula be safe to use, but the treatment will also be effective.

Following Zhang Zhong-Jing, physicians such as Sun Si-Miao (孙思邈), Zhu Gong (朱肱), Xu Ling-Tai (徐灵胎), Ke Qin (柯琴) and Yu Jia-Yan (喻嘉言) were highly influential in the ‘school of formula types’ (方类证派), adhering to

the concept of ‘formula presentations with similar clauses’ (方证同条).⁵ Song dynasty Zhu Gong referred to a formula presentation simply as a ‘herb presentation.’⁶ The Japanese physician Todo Yoshimasu (吉益东洞) was a strict adherent to the model laid

out by Zhang Zhong-Jing, and was a major contributor to the Japanese Classical Formula School (日本古方派).

Although many of these physicians adhered to the formula presentation model, there are some differences in their overall approach and in the method with which they arrived at the presentation. For example, Ke Qin wrote: ‘Patterns are differentiated from the conformations, therefore the pattern is named after the formula’ (证从经分，以方名证),⁷ referring to the six conformations (六经), while Xu Ling-Tai wrote: ‘In order to [determine] the formula presentation type, [one must] not differentiate according to the conformations’ (以方类证，方不分经).⁸ While both used the formula presentation model as their method to choose a formula, Ke Qin recorded signs and symptoms exactly as they appear in the *Shang Han Lun*’s six conformations, while Xu Ling-Tai worked with general signs and symptoms.⁹

Essentially, a formula presentation is experience: the experienced usage of herbs and formulas over thousands of years. In order to understand the formula presentation of *Xiao Jian Zhong Tang*, the origins of the formula need to be researched and discussed.

The origin of Xiao Jian Zhong Tang

The first mention of *Xiao Jian Zhong Tang* is in the *Shang Han Za Bing Lun*, though its origins lie in Yi Yin's *Tang Ye Jing Fa* (汤液经法, Methods of the Decoction Classic). Although this book has been lost, remnants were found within the *Fu Xing Jue Zang Fu Yong Yao Fa Yao* (辅行诀脏腑用药法要, Essential Method of Using Medicinal Substances for the Differential Treatment of the Five Zang Organs).¹⁰ We know Zhang Zhong-Jing was well versed in the classics and referred to them when writing his masterpiece, as the preface to his *Shang Han Lun* says:

I have diligently sought the guidance of the ancients, widely collected the various remedies, and consulted *Su Wen* ("Plain Questions"), *Jiu Juan* ("The Nine Fascicles"), *Ba Shi Yi Nan* ("The Eighty-One Difficult Issues"), *Yin Yang Da Lun* ("The Great Treatise on Yin and Yang"), *Tai Lu Yao Lu* ("The Tai Lu Record of Medicinals") and the *Ping Mai Bian Zheng* ("The Assessment of Pulses and Identification of Patterns") to create the *Shang Han Za Bing Lun*, totaling sixteen fascicles.¹¹

勤求古训，博采众方，撰用《素问》、《九卷》、《八十一难》、《阴阳大论》、《胎产药录》，并平脉辨证，为《伤寒杂病论》，合十六卷。¹²

Original lines and formula ingredients

Here below are listed the *Shang Han Lun* and *Jin Gui Yao Lue* (金匮要略, Essential Prescriptions of the Golden Cabinet) lines on *Xiao Jian Zhong Tang*.

Shang Han Lun, line 100: 'When in cold damage, the yang pulse is rough, and the yin pulse is stringlike, as a rule, there should be acute pain in the abdomen, so one should first give Minor Center-Fortifying Decoction (*Xiao Jian Zhong Tang*), and if [there is] no improvement, giving Minor Bupleurum Decoction (*Xiao Chai Hu Tang*) governs.¹³

《伤寒论 - 100条》：伤寒阳脉涩，阴脉弦，法当腹中急痛，先与小建中汤不差者，小柴胡汤主之。

Shang Han Lun, line 102: 'When in cold damage [that has lasted for] two or three days, [there are] palpitations and vexation in the heart, Minor Center-Fortifying Decoction (*Xiao Jian Zhong Tang*) governs.¹⁴

《伤寒论 - 102条》：伤寒二三日，心中悸而烦者，小建中汤主之。

Jin Gui Yao Lue - Pulses, Signs and Treatments of Blood Impediment and Deficiency Taxation:

'In vacuity taxation with abdominal urgency, palpitation, spontaneous external bleeding, pain in the abdomen,

seminal loss while dreaming, aching pain in the limbs, vexing heart in the hands and feet, and dry throat and mouth, Minor Center-Fortifying Decoction (*Xiao Jian Zhong Tang*) governs.¹⁵

《金匮要略 - 血痹虚劳病脉证治》：虚劳里急，悸，衄，腹中痛，梦失精，四肢酸痛，手足烦热，咽乾口燥，小建中汤主之。

Jin Gui Yao Lue - Pulses, Signs and Treatments of Yellowing: 'If men suffer from yellowing, with uninhibited urination, you should give Minor Center-Fortifying Decoction (*Xiao Jian Zhong Tang*) for vacuity taxation.¹⁶

《金匮要略 - 黄疸病脉证治》：男子黄，小便自利，当以虚劳小建中汤。

Jin Gui Yao Lue - Pulses, Signs and Treatments of Miscellaneous Women's Diseases:

'For women's abdominal pain, Minor Center-Fortifying Decoction (*Xiao Jian Zhong Tang*) governs.¹⁷

《金匮要略 - 妇人复杂病脉证治》：妇人腹中痛，小建中汤主之。

Xiao Jian Zhong Tang formula in the *Shang Han Lun*:

Gui Zhi (Cinnamomi Ramulus) 3 liang (remove the peel)

桂枝三两(去皮)

Zhi Gan Cao (honey-prepared Licorice) 2 liang 甘草二两(炙)

Da Zao (Jujubae Fructus) 12 pieces (broken) 大枣十二枚(掰)

Shao Yao (Paeoniae Radix) 6 liang 芍药六两

Sheng Jiang (Zingiberis Rhizomarecens) 3 liang (sliced) 生姜三两(切)

Jiao Yi (Granorum Saccharon) 1 sheng 胶饴一升

'[For] the above six ingredients use seven sheng of water, boil until three sheng remain. Remove the dregs and add the Jiao Yi. Put on low flame until it melts. Take one sheng warm, three times daily. People prone to nausea cannot take *Xiao Jian Zhong Tang*, as it is too sweet.'

右六味，以水七升，煮取三升，去滓，纳饴，更上微火消解。温服一升，日三服。呕家不可用建中汤，以甜故也。

It should be noted here that in the *Jin Gui Yao Lue*, the dosage of Zhi Gan Cao is recorded at 3 liang. All other herbs are in the same dosage as in the *Shang Han Lun*'s version of this formula. Zhang Zhong-Jing does not specify the reason for this modification, however it can be assumed that as the *Jin Gui Yao Lue* version of *Xiao Jian Zhong Tang* is used for deficiency taxation (虚劳), the extra sweetness of Zhi Gan Cao may be required to provide more nourishment to the centre.

Historical usage of Xiao Jian Zhong Tang

Over the centuries *Xiao Jian Zhong Tang's* broad application to a wide variety of conditions and to patterns of deficiency taxation has been the subject of analysis and debate for generations of physicians, with many holding differing views as to the pathomechanisms (病机) the formula can address.

Most modern formula textbooks record that the main functions of the *Xiao Jian Zhong Tang* are to warm the centre and supplement deficiency (温中补虚), and moderate urgency and stop pain (缓急止痛). They describe its primary uses as the treatment of Spleen and Stomach deficiency cold causing abdominal cramping and pain that favours warmth, and that of deficiency taxation heat effusion. In both cases the patient displays decreased appetite, pale complexion, pale tongue and a wiry-choppy pulse.¹⁸

Within the context of the *Shang Han Za Bing Lun*, *Xiao Jian Zhong Tang* is used for four main patterns and symptoms:

1. Cold damage-external contraction (*Shang Han Lun*, lines 100 and 102)
2. Deficiency Taxation (*Jin Gui Yao Lue* - Pulses, Signs and Treatments of Blood Impediment and Deficiency Taxation)
3. Jaundice (*Jin Gui Yao Lue* - Pulses, Signs and Treatments of Yellowing)
4. Gynaecological abdominal pain (*Jin Gui Yao Lue* - Pulses, Signs and Treatments of Postpartum Diseases)

According to several physicians and commentators throughout the last 1800 years, several patterns have been ascribed to *Xiao Jian Zhong Tang*, which is one of the many reasons its use is so varied as to cover a wide range of diseases. These basic patterns are as follows:

1. Heart qi and blood deficiency palpitations (心气血虚悸证)
2. Spleen qi and blood deficiency (脾气血虚证)
3. Qi and blood deficiency internal heat (气血虚内热证)
4. Qi and blood deficiency yellowing (气血虚发黄证)
5. Dual deficiency of Heart and Spleen qi and blood (心脾气血俱虚证)
6. Female qi and blood deficiency abdominal pain (妇人气血虚腹痛证)

As can be seen from the above, the main aspect of this formula pattern involves Heart and Spleen qi and blood

deficiency. However, in regards to deficiency taxation, it is usually agreed upon that the basic pathomechanism involves a combined deficiency of yin, yang, qi and blood (阴阳气血虚). The following further discussion of the formula's pathomechanism will focus on this concept in the hope of showing that the actual underlying mechanism by which this formula perform its actions is far greater and more complex than those mentioned above.

Over the centuries *Xiao Jian Zhong Tang's* broad application to a wide variety of conditions and to patterns of deficiency taxation has been the subject of analysis and debate for generations of physicians.

The pathomechanism of *Xiao Jian Zhong Tang*

I believe that the reason *Xiao Jian Zhong Tang* yields clinical results in a wide variety of patterns and as a major deficiency taxation formula is its effect on several pathomechanisms. One

common understanding of the pathology this formula treats is the disharmony between yin and yang, whereby yin and yang go to the extreme, resulting a mixture of both cold and heat symptoms. In this case it is obviously not suitable to use cold herbs to treat heat-related signs and symptoms and to choose warm herbs to treat cold-related ones. One must deal with this condition with sweet and warm herbs to build up qi in the middle burner. The middle burner refers to the Spleen and Stomach, which are the source of the nutritive and the defensive qi. If the Spleen and Stomach are unable to transform and transport the essence from water and grains, yin and yang will not be nourished. *Xiao Jian Zhong Tang* is a formula for dry earth. This means that the person is not assimilating enough nutrients in their bodies; the tai yin (太阴) aspect of opening,¹⁹ where nutrients are assimilated into the person's cells and flesh in order for growth to occur, has failed to some degree. This is the core of the deficiency taxation concept.

One interpretation of the disease mechanism of the *Xiao Jian Zhong Tang* pattern views it through the theory of ascending and descending, movement of the channels, and the qi movement within the six conformations. This involves tai yin Spleen deficiency (太阴脾虚), shao yang failure to descend (少阳不降) and jue yin failure to ascend (厥阴不升). When the tai yin Spleen is deficient then jue yin wind wood is depressed (郁) and fails to ascend, and when shao yang ministerial fire (少阳相火) is depressed it fails to descend. Therefore, Yi Tang (Maltosum), Gan Cao (Glycyrrhizae Radix) and Da Zao (Jujubae Fructus) are used to supplement the Spleen and restore the qi mechanism of ascending and descending (复气机升降). Abdominal pain is typically the result of Liver wood restraining (克)

the earth, therefore Shao Yao (Paeoniae Radix) is used to calm the Liver (平肝), stop pain (止痛) and clear the shao yang (清少阳). It is for this very reason that many authors believe that the *Xiao Jian Zhong Tang* pattern is not strictly a tai yin disease, but also a shao yang disease.²⁰ This view is in accordance with clause 100 in the *Shang Han Lun*, which states: ‘When in cold damage, the yang pulse is rough, and the yin pulse is stringlike, as a rule, there should be acute pain in the abdomen, so one should first give Minor Center-Fortifying Decoction (*Xiao Jian Zhong Tang*), and if [there is] no improvement, giving Minor Bupleurum Decoction (*Xiao Chai Hu Tang*) governs.’²¹ Symptoms such as palpitations and vexation in the Heart, vexing heat in the limbs, dryness of the mouth and throat are, among others, hard to justify merely through a diagnosis of tai yin deficiency cold, therefore this model of understanding helps establish a basis for these symptoms. In addition, in line 280 of the tai yin chapter, Zhang Zhong-Jing stated:

When in greater yin disease, the pulse is weak and the person is about to have spontaneous diarrhea, if [one] must use rhubarb (da huang) and peony (shao yao), it is appropriate to reduce [the dosage], because the person’s stomach qi is weak, and [therefore] easily stirred [by these medicinals].²²

太阴为病,脉弱,其人续自便利,设当行大黄、芍药者,宜减之,以其人胃气弱,易动故也。

This suggests that due to weakness of Stomach qi, Shao Yao should be omitted. The *Zhen Wu Tang* (True Warrior Decoction) modifications postscript says, ‘With diarrhoea, remove Shao Yao, and add 2 liang of Gan Jiang (Zingiberis Rhizoma)’. Shao Yao is removed due to weakened Spleen yang, therefore, if *Xiao Jian Zhong Tang* were strictly for treating middle burner deficiency cold, Zhang Zhong-Jing would not use a double dose of Shao Yao in it.

The Spleen and Stomach of the middle jiao are the pivot for the physiological movement of ascending and descending. The Spleen ascends, while the Stomach descends; the Liver ascends, while the Lung descends. The ascending nature of the Spleen provides the impetus for the Liver to ascend. With a tai yin Spleen deficiency, jue yin wood becomes stagnant and fails to rise, and shao yang ministerial fire fails to descend. Therefore, from this perspective we see that the pathology for a *Xiao Jian Zhong Tang* presentation not only includes tai yin Spleen deficiency but also jue yin not ascending and shao yang failing to descend.

According to Sun Da-Zhi, the pathomechanism of *Xiao Jian Zhong Tang* is Spleen and Stomach yang deficiency, centre qi insufficiency and devitalised original qi leading to irregular ascending and descending of fire and water, resulting in turn in a pattern of Spleen and Stomach

deficiency cold.²³ Regardless of the overall pathogenesis of the presentation, the underlying mechanism can be simply broken down into an insufficiency of the Spleen and Stomach. An insufficiency of both Spleen and Stomach can refer to yang qi insufficiency. This is reflected in the words of Jin dynasty Li Dong-Yuan (李东垣) where he states:

The origin of Spleen and Stomach insufficiency is in the insufficiency of yang qi.

脾胃不足之源,乃阳气不足。²⁴

Li Dong-Yuan suggests that yang deficiency is the main cause of Spleen and Stomach insufficiency. In addition, from the perspective of the upbearing and downbearing function of the qi mechanism, he also suggests that the main disease mechanism involved in the internal damage of Spleen qi is Spleen yang insufficiency, with clear yang failing to ascend and original qi sinking downwards, which invariably leads to the development of disease.

Ye Tian-Shi (叶天士) believed that there are four factors involved in a *Xiao Jian Zhong Tang* disease mechanism:

1. Damage to both the nutritive and defence qi, and insecurity and deficiency of the exterior (营卫交损, 表虚不固).
2. Deficiency and decline of the Spleen and Stomach, and earth unable to generate metal (脾胃虚衰, 土不生金).
3. Upper damage reaching the centre (上损及中).
4. Lower damage reaching the centre deficiency taxation (下损及中虚劳案).²⁵

A main feature of a *Xiao Jian Zhong Tang* pattern is dryness, typically manifesting in the bowel movements through constipation. The disease mechanism here is a disruption of the qi mechanism due to Spleen and Stomach deficiency cold. Typically, a regulated qi mechanism ascends and descends without fail; when the qi ascends, then fluids can descend in order to moisten the intestines. We know that qi is the mother of blood, therefore, if the qi mechanism is bound and obstructed, then the ascending and descending mechanism is disrupted and fluids fail to disseminate, resulting in constipation.

As we can see, there are multiple views as to the true pathogenesis of a *Xiao Jian Zhong Tang* pattern; I believe that by merely being open to all possibilities, the window of what this formula is capable of treating is expanded.

The ‘Formula-Disease-Person’ model and formula presentations

According to Professor Huang Huang, in order to understand a formula presentation, become more proficient in a formula’s use and expand its clinical reach,

a triangular model should be used, consisting of 'Formula' (方), 'Disease' (病) and 'Person' (人) (see Figure 1). This model encompasses the formula and its construction, the diseases that the formula treats and the patient for which the formula is most suitable.

The concept of disease

The concept of disease here refers to the specific symptoms and conditions a given formula treats. Not only does this include the ancient diseases for which this formula was used, but also the modern biomedical diseases seen in present days. This paper will highlight the more modern conditions for which *Xiao Jian Zhong Tang* is applicable, based on analysis of Professor Huang's cases.

The concept of constitution

The 'person', within the triangular model refers to the specific constitution associated with a formula. According to the *Practical Dictionary of Chinese Medicine*,²⁶ a constitution is the aggregate of stable physical and functional characteristics of an individual, consisting of (a) physical characteristics, such as shape and size of body, the firmness of the flesh, colour of the skin and complexion; (b) functional characteristics, such as physical strength (muscle power), or digestive efficiency; (c) mental characteristics, such as aggressive or quiet disposition. The constitution is determined by factors that intervene after birth such as development, diet, lifestyle and illness. A constitution is not something established at or before birth and that is fixed and unchangeable. It can change over the course of life, however it does not change from day to day.

The significance of the Chinese medical understanding of constitution lies in the ability to relate outwardly visible characteristics to functional ones. From the first encounter with a patient, the practitioner sees the size and shape of the body, the firmness of the flesh and the colour of the skin. These outward constitutional indices tell the practitioner what functional strengths and weaknesses the patient is likely to have, to what problems the patient is likely to be susceptible and how the patient's pathological conditions are likely to develop. Chinese medicine understands illness to be caused by external causes and internal imbalances. These two factors are not entirely separate, since the body's internal balance determines each individual's reaction to external causes of disease. Constitutional imbalances thus play a decisive role in the development of illness and are a major consideration in ensuring successful treatment. According to Professor Huang Huang, these internal and external factors can be translated into the typical signs and symptoms treated by a specific herb. He refers to this as a 'herbal person' (药人).

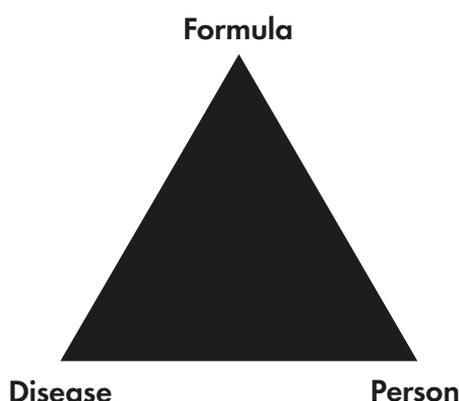


Fig. 1: Professor Huang Huang's Triangular Model of 'Formula', 'Disease', and 'Person.'

A 'herbal person' refers to a constitutional type or tendency for which a specific herb is suitable for long term consumption. For each constitution, taking the correspondent herb and the formulas based on it can achieve positive outcomes in a relatively short period of time and is absolutely safe.

Xiao Jian Zhong Tang's suitable symptoms and disease application

As the concept, structure and clinical use of the 'formula' has been explored, the following will present the main symptoms and diseases (the formula's 'disease') for which this formula is used the most. In addition, a sub-section on the expanded use of the formula will offer a view of this formula's applications in the treatment of a few common conditions that are not mentioned in any of the original lines. This will be followed by a discussion on the 'person' for which this formula is applicable.

Main symptoms treated

Based on Professor Huang Huang's case analysis, the most common symptoms treated are:

Constipation: As dryness can be a key feature of this formula presentation, many patients present with constipation. According to Professor Huang Huang's case analysis, constipation was seen 152 times (52.23 per cent), and typically manifests in stools that are dry and are excreted in small pieces about the size of a chestnut. The mechanism by which constipation can be treated with this formula is through the relaxation of tension, nourishment of fluids and the supplementation of qi. Spleen qi provides the driving force to move the bowels by increasing motility. When Spleen qi is deficient, it is unable to provide the force to move the bowels. *Xiao Jian Zhong Tang* uses Gan Cao, Da Zao and Yi Tang to supplement the centre and tonify qi. The

fluids provide the necessary lubrication and medium for the stools to smoothly flow out, and are nourished through the high dose of Shao Yao. According to Professor Huang Huang, 'Shao Yao is also referred to as lesser Da Huang (Rhei Radix et Rhizoma), as high doses can free the bowels' (芍药俗称小大黄, 量大能动大便). In addition, a *Xiao Jian Zhong Tang* pattern presents with internal contraction, and another major function of Shao Yao is to moderate urgency and support intestinal relaxation. Once the tension in the bowels has been decreased, the stools flow easily. Therefore, constipation is a major sign present in the overall formula presentation.

Insomnia: This is a very commonly seen symptom, present 141 times (42.08 per cent) in the case analysis.

Abdominal pain: This is also a very common symptom with this formula presentation, and it was seen 137 times (40.89 per cent). Many of these patients present with abdominal pain that favours warmth and pressure and that can manifest when hungry.

Vexation and agitation: Another commonly seen symptom in this paper's case analysis, seen 81 times (24.17 per cent). Professor Huang says that *Xiao Jian Zhong Tang* patients are easily vexed and agitated, especially when they are hungry, and stresses the importance of ensuring that these formula types do not let themselves get hungry.

Craving for sweet foods: While not in any of the original lines, Professor Huang Huang has found that many *Xiao Jian Zhong Tang* patients display this symptom, as it was recorded 79 times (23.58 per cent) in the cases analysed. This may come from the fact that these patients require the nourishment of the sweet flavour, and therefore crave sweets and enjoy eating these foods, as they make them feel better both physically and mentally. The sweet flavour both moderates - creating physical and mental relaxation - and nourishes - providing essential nutrients and yin fluids to those with weakness and deficiency.

Fatigue: This is a very common symptom and the hallmark of a Spleen-Stomach qi deficiency, for which this formula is commonly prescribed. A distinguishing feature of this type of fatigue is that patients feel weak and tired, with a strong desire to lie down or sleep. This symptom was seen 78 times (23.28 per cent) in Professor Huang's case analysis.

Abdominal distension: This symptom was seen 72 times (21.49 per cent). It is described as distension or bloating primarily after meals. This typically signifies a weakness of the Spleen and Stomach failing to properly digest and

assimilate foods, resulting in distension, which this formula is excellent at treating. It was differentiated from 'abdominal pain' in that either there was no abdominal pain, or the pain was negligible or occasional.

Easily getting hungry: A very interesting symptom associated with this formula is easily getting hungry, which was seen 65 times (19.40 per cent) within the cases analysed. These patients typically get hungry easily, and especially when under stress. In addition, they also typically experience irritability or even vexation when hungry, as mentioned above. This symptom, commonly referred to as 'hangry' in English-speaking countries, in many cases signifies drops in blood sugar levels, and is a salient feature in *Xiao Jian Zhong Tang* patients.

Fear of cold: This is the hallmark symptom of the Gui Zhi constitution, and refers to either a sensitivity to or even full aversion to cold, where the patient has a difficult time warming up and is only comfortable in warm rooms or with extra clothing. This symptom was seen 62 times (18.50 per cent) within the analysis.

Poor appetite: Within the analysis this term covered various symptoms related to a weakened or poor appetite, and was recorded as 'no thought of food and drink' (不思饮食), 'reduced intake' (纳差) or 'reduced food and drink' (饮食减少). It is interesting to note here that this symptom was seen 61 times (18.20 per cent), a similar frequency to that of easily getting hungry, suggesting that a *Xiao Jian Zhong Tang* 'person' can equally experience either of these two symptoms.

Through its sour flavour, Shao Yao is able to relax tension and treat various types of tension and spasms in the body

Main diseases treated

According to the analysis carried out on Professor Huang Huang's cases, the most common disease categories treated with *Xiao Jian Zhong Tang* were, in order of frequency:

Gastrointestinal diseases: These made up 29.26 per cent of all of the diseases for which this formula was used. Several conditions were treated with this formula, which included: hepatitis B, habitual constipation, intestinal polyps, Crohn's disease, colitis, duodenal ulcers, gastritis and various other gastrointestinal diseases.

Constitution imbalance: While not a disease as such, constitution imbalance was the second most common 'disease' category for which this formula was prescribed in the cases analysed. This means *Xiao Jian Zhong Tang* was used to regulate and adjust a weak constitution in order to either prevent disease or to nourish the body following a major condition. In the cases analysed this method was used 65 times (19.41 per cent). Many of these patients presented

with weight loss, inability to gain weight, weakness following a major disease, were postpartum, undergoing cancer treatments, or suffered other similar complaints. This is a major feature of Chinese medicine, where the focus can be on physiology as opposed to pathology, to ensure that a person's overall physiology and organ systems are running well, in order to maintain good health and prevent disease from occurring or relapsing. This adheres closely to the first paragraph of chapter 1 of the *Jin Gui Yao Lue* where it is stated:

The superior physician treats diseases before they arise.²⁷
上工治未病。

Professor Huang believes that when a formula is used correctly according to the constitution, many conditions can be addressed, not necessarily by treating them directly, but by adjusting the constitution; this achieves physiological homeostasis, thereby creating an inhospitable environment for disease to live and thrive in.

Gynaecological diseases: These accounted for 14.63 per cent of total cases seen, and included various symptoms such as breast distension (17.31 per cent), scanty menses (9.85 per cent), menstrual blood clots (5.07 per cent), amenorrhoea (3.28 per cent), copious menses (3.28 per cent), leukorrhoea (1.49 per cent) and irregular menses (0.89 per cent). When the presentation fits, *Xiao Jian Zhong Tang* can treat various gynaecological conditions and symptoms.

Neurological disorders: These accounted for 7.17 per cent of the total cases seen. The main conditions treated with the formula were insomnia, dizziness, headaches, anxiety, Tourette syndrome, epilepsy and autism.

Dermatological diseases: The most common conditions that were treated with this formula in this paper's case analysis, which accounted for 5.97 per cent of all cases, were acute and chronic urticaria, eczema, acne, purpuric rashes, psoriasis, scrotal eczema, pruritus and pityriasis.

Xiao Jian Zhong Tang's applicable population

In order to understand the 'person' of the formula, the constitution associated with the formula must be discussed. According to Professor Huang Huang, this formula is typically associated with a Gui Zhi constitution, however, I believe that a *Xiao Jian Zhong Tang* formula presentation is composed of two distinct constitutions, a Gui Zhi and a Shao Yao constitution. These will be discussed here below.

Gui Zhi constitution

The Gui Zhi constitution has been extensively written

about by Professor Huang in several of his books. The salient features of this constitution are: a tendency to being thin, pale skin tone, tight musculature, moist skin, flat abdomen with tight abdominal muscles, spirited eyes, pale-red or dark lips, a floating, large pulse, a moist tongue body, a soft, pale-red or dark-pale tongue and a thin, white tongue coating. A Gui Zhi 'person' sweats easily or experiences spontaneous or night sweating, and may even sweat from their extremities, they have a fear of cold, experience generalised pain and are easily over-stimulated and sensitive; these people contract colds easily, easily experience abdominal pain, palpitations, shallow sleep with copious dreams, and easily suffer from constipation and muscle spasms.²⁸

Shao Yao constitution

While Professor Huang refers to *Xiao Jian Zhong Tang* as falling under the category of a Gui Zhi constitution, I would like to posit the idea that since the formula uses a double dose of Shao Yao compared to *Gui Zhi Tang* (Cinnamon Twig Decoction), the prototypical Gui Zhi formula, there must exist elements of a Shao Yao constitution. What does this look like in clinical practice? In order to understand the Shao Yao constitution - and where and when this ingredient is applicable - an exploration into the typical Shao Yao indications and formulas is necessary.

The main indications of Shao Yao

- Hypertonicity manifesting in the feet, legs, abdomen and smooth muscles of the body. Through its sour flavour, Shao Yao is able to relax tension and treat various types of tension and spasms in the body, manifesting as diaphragm spasms, urethral spasms, vaginal spasms, facial muscle spasms, bronchospasms, to name a few.²⁹ Line 29 of the *Shang Han Lun* states: '... hypertonicity of the feet ... one can then use Peony and Licorice Decoction (Shao Yao Gan Cao Tang) and the feet will then [be able to] stretch'³⁰ (... 脚挛急 ... 芍药甘草汤与之, 其脚即伸).
- Abdominal pain and fullness: Zhang Zhong-Jing favoured the use of Shao Yao in formulas which treat abdominal pain. Aside from *Xiao Jian Zhong Tang*, there are various other formulas containing this ingredient that treat abdominal pain and fullness. These can be seen in such lines as: *Jin Gui Yao Lue* - Postpartum Diseases: 'In the postpartum, [when] there is abdominal pain and vexing fullness, with an inability to lie down, Zhi Shi Shao Yao San (Unripe Bitter Orange and Peony Powder) governs' (产后腹痛, 烦满不得卧, 枳实芍药散主之); *Shang Han Lun*, line 279: 'Originally there was tai yang disease, but the physician used purgation, and as a result there is abdominal fullness with periodic pain, this belongs to tai yin [disease], and Gui Zhi Jia

Shao Yao Tang (Cinnamon Twig Decoction plus Peony) governs' (本太阳病，医反下之，因尔腹满时痛者，属太阴也，桂枝加芍药汤主之); line 279 also states: '[if there is] major excess pain, Gui Zhi Jia Da Huang Tang (Cinnamon and Rhubarb Decoction) governs' (大实痛者，桂枝加大黄汤主之). Several modifications of other formulas also include Shao Yao as an addition in cases of abdominal pain. These include:

- *Shang Han Lun*, Line 96, *Xiao Chai Hu Tang* (Minor Bupleurum Decoction) modification: 'If there is abdominal pain, remove Huang Qin (Scutellariae Radix) and add 3 liang of Shao Yao' (若腹中痛者，去黄芩加白芍三两).
- *Shang Han Lun*, line 317, *Tong Mai Si Ni Tang* (Unblock the Pulse Decoction for Frigid Extremities) modification: '[With] abdominal pain, remove Cong [Bai] (*Allii fistulosi Bulbus*) and add 2 liang of Shao Yao' (腹中痛者，去葱加芍药二两).
- *Jin Gui Yao Lue*, *Fang Ji Huang Qi Tang* (*Stephania* and *Astragalus* Decoction) modification: 'If the Stomach is not harmonised, add 3 fen of Shao Yao' (胃中不和者加芍药三分).
- Spasmodic conditions: Shao Yao has the ability to treat various kinds of spasms, including stomach cramps, intestinal cramping, diaphragm spasms and spasms of the smooth muscles of other internal organs. From a five element perspective, Shao Yao tonifies metal through its sour flavour, which controls wood. When wood is under control it is less likely to attack the earth, which can result in various digestive symptoms including abdominal pain. This is the main reason why the *Shen Nong Ben Cao* (神农本草, Divine Farmer's Classic of Materia Medica) says that Shao Yao can moderate the centre (缓中) and treat abdominal pain.
- Inhibited Urination: the *Shen Nong Ben Cao* says, 'Shao Yao ... disinhibits urination' and the *Ming Yi Bi Lu* (名医别录, Supplementary Records by Famous Physicians) states, '[Shao Yao] expels water qi, and disinhibits the bladder.' Shao Yao is not a major diuretic, however; it helps water flow by reducing the wood's attack on the earth, thus making the earth stronger. One of the key functions of the earth element is to control water. In reality, Shao Yao helps with general flow through its antispasmodic effect. When the pathway is relaxed, flow occurs more naturally, whether it is in the bladder, uterus, urethra, or other conduits. This function is also what makes Shao Yao excellent in treating spasms.
- Excessive sweating: Zhang Zhong-Jing used Shao Yao to astringe the nutritive and thus treat excessive sweating.
- Constipation: The *Yakucho* states,³¹ '[Shao Yao] governs the treatment of excess binding.'³² Shao

Yao treats excessive congestion manifesting with constipation, not by purging the bowels the way Da Huang does but through intestinal relaxation. Once the tension has been decreased in the bowels, the stools flow easily. Shao Yao is commonly used for constipation, and there are several lines in which it is either removed or decreased when diarrhoea is present. The post-script to *Zhen Wu Tang* says, 'if there is diarrhoea, remove Shao Yao' (若下利者，去芍药).³³ The reasons for the removal of Shao Yao here are not very clear as diarrhoea is also present in the original pattern. One theory is that Shao Yao should be removed when diarrhoea is severe. Several other formulas that contain Shao Yao also treat diarrhoea, such as *Da Chai Hu Tang* (Major Bupleurum Decoction), *Si Ni San* (Frigid Extremities Powder) and *Huang Qin Tang* (Scutellaria Decoction), among others, therefore one can conclude that Shao Yao is safe to use in general diarrhoea patterns, but if this is severe, this herb should be removed. As we have seen, line 280 of the *Shang Han Lun* states: 'the person is about to have spontaneous diarrhea, if [one] must use rhubarb (da huang) and peony (shao yao), it is appropriate to reduce [the dosage], because the person's stomach qi is weak...' (其人续自便利，设当行大黄，芍药者，宜减之，以其人胃气弱...). This line further illustrates that when treating diarrhoea, the dosage of Shao Yao must be reduced.

Shao Yao constitution

From the above discussion, we can deduce that a person with a Shao Yao constitution is most likely dried out, which is reflected in contraction and dryness of tissues. This can manifest with symptoms such as pain, spasms, tension and contraction. Patients would primarily be thin and will present hard and tight muscles, especially in the abdomen.

From my own experience, many patients that require Shao Yao formulas manifest this tension on an emotional level as well, they have a rigid personality, are more introverted and have a generally tense disposition. This can often be seen in thinner children that are under immense pressure at school or at home, and who also suffer from abdominal pain and constipation. In addition, marathon runners and various types of athletes can often be seen as Shao Yao types with loss of muscle mass and very rigid abdominal muscles. As a Shao Yao constitution can resemble a Gui Zhi one and manifest in various similar signs and symptoms. I believe that the main distinguishing symptoms that separate the two are the stronger abdominal pain and the constipation very commonly seen in a Shao Yao constitution.

Summary and conclusions

The following is a summary of the findings discussed in my original dissertation, which are far too large to be presented in their entirety in this current paper.

- Function of *Xiao Jian Zhong Tang*: Fortify the centre, support yang, regulate and harmonise wood and earth, harmonise the nutritive and defence, warm and nourish the Heart and Spleen, and supplement qi and blood.
- Pathomechanism of *Xiao Jian Zhong Tang*: The pathomechanism is very complex involving multiple factors, with numerous commentators holding a variety of opinions. These include: disharmony of yin and yang, tai yin Spleen deficiency, failure of shao yang to descend, failure of jue yin to ascend, Spleen and Stomach yang deficiency, centre qi insufficiency, devitalised original qi, and Spleen and Stomach deficiency cold.
- *Xiao Jian Zhong Tang* constitution: The *Xiao Jian Zhong Tang* constitution combines both the Gui Zhi and the Shao Yao constitution.

Additional findings from the original dissertation included:

1. The formula is used for all ages, however the most commonly treated groups based on case analysis were the zero to 10 years olds (30.7 per cent) and the 31-40 year olds (21.1 per cent).
2. Female patients were more commonly treated (68.9 per cent).
3. Patients were usually thin or underweight (77.1 per cent).
4. Patients manifested with hard and tight muscles, especially in the abdomen. These are not a reflection of strength, but of contraction of the tissues due to deficiency or lack of adequate nutrition.
5. A red or dark-red tongue was most commonly seen, which is contrary to the tongue presentation one would expect to find in a standard Spleen and Stomach deficiency cold pattern.
6. Tongue coating was either thin or thick.
7. A weak pulse was most commonly seen.
8. A yellowish facial complexion was the most commonly seen; a red complexion was also seen, but not as frequently. Again, these signs also diverge from what one would expect to find in the standard pattern attributed to this formula in modern formula textbooks.
9. Skin colour is most commonly pale and possibly dry.
10. Abdominal diagnosis commonly manifests with spasms in the abdominal muscles with a pulling and contracting sensation, which may or may not be painful, but is usually not. On abdominal palpation, the rectus abdominis spasms, jerks or feels like a rope. In addition, this formula presentation typically

manifests with umbilical pulsation, which is described as a pulsation around the umbilicus, and pulsation of the aorta can be easily felt.

11. The most common symptoms seen according to case analysis include: constipation, insomnia, abdominal pain, vexation and agitation, craving for sweet foods, fatigue, abdominal distension, getting hungry easily, a fear of cold and a poor appetite.
12. The most common diseases treated according to case analysis include: gastrointestinal diseases, conditions stemming from poor constitution gynaecological disorders, neurological disorders and dermatological diseases.

While it is clear from the above discussion that Professor Huang prescribes *Xiao Jian Zhong Tang* in accordance with the original lines from the *Shang Han Za Bing Lun*, his scope of usage is quite vast; he uses the formula for a very specific constitution, which can manifest with a variety of symptoms not found in the original lines. These include among others: constipation, insomnia, craving for sweet foods, fatigue and a fear of cold.

While there are factors in this paper that will hopefully shed new light on the expanded usage of *Xiao Jian Zhong Tang*, deficiencies in this study do exist. For example, there is no standardisation of medical terms; this is partially due to various patients describing a specific symptom differently. While all attempts at drawing similarities between symptoms and descriptions of ailments given by the patients were made, it is impossible to be completely consistent. The same can be said about disease terminology. Many conditions overlap in a variety of ways and occasionally doctors will disagree on a patient's diagnosis, especially if it is made on the basis of functional manifestations as opposed to organic ones, as only the latter can be measured through various biomedical techniques and equipment. To add to potential deficiencies of this research, the recording of the outpatient medical records used in the case analysis was not strict in distinguishing specific conditions, and on occasions the Western medical condition was omitted. Not all pulse, tongue, abdomen, complexion and other characteristic signs were recorded, which decreased the total number of cases that could be used for this analysis, thereby affecting overall results. In addition, it is impossible to discuss in great detail in one paper every condition or symptom for which this formula is effective; it is my hope that more research will be conducted using Professor Huang's triangular model, to help further expand the usage of *Xiao Jian Zhong Tang* to its full potential of applications.

Acknowledgements

The original dissertation in Chinese can be obtained at <http://kns.cnki.net/kcms/detail/detail.aspx?filename=1019063992.nh&dbcode=CDFD&dbname=CDFDTEMP&v=> (either a CNKI account or a purchase are necessary).

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Eran Even, Ph.D., Dr.TCM, is a Doctor of Chinese Medicine practising in beautiful Port Moody, B.C. in Canada. Eran earned his doctorate from the Nanjing University of Chinese Medicine under the guidance and mentorship of Professor Huang Huang, and has been in practice and engaged in the practice of 'Jing Fang' (Classical Methods/Formulas) for many years. Eran is the translator of Chen Xiu-Yuan's *Formulas from the Golden Cabinet with Songs*, volume 2, and his translations have been published in various journals and publications around the world. The author can be contacted at info@eraneven.com.

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Observations on Intrinsic Asthma and the Bladder Channel

Janice Walton-Hadlock

Abstract

In an emergency situation, the body has two possible responses: increasing the level of sympathetic mode above baseline or activating the mammalian dive reflex. The physiology of the mammalian dive reflex has long been recognised as consistent with the symptoms and chemical changes of intrinsic asthma. This article documents observations in five patients with intrinsic asthma that suggest that people who inadvertently activate the mammalian dive reflex, causing symptoms of asthma, do so because their bodies cannot adequately activate the sympathetic mode. According to the clinical observations of the author, an emergency-level increase in sympathetic mode requires a very specific set of channel qi alterations involving the Bladder and Kidney channels. In every intrinsic asthma case attended by the author, the patient had an obstruction in the flow of channel qi that prevented the patients from accessing or increasing the degree of sympathetic mode. When the blockages were removed using acupuncture and/or tuina, the ongoing asthma attack and/or the tendency for asthma ceased and did not return. This article is a call for replication.

Keywords

Asthma, Bladder channel divergence, mammalian dive reflex, exaggerated parasympathetic mode, diminished sympathetic mode, acupuncture, tuina, Chinese medicine