

Application of Xiao Chai Hu Tang in Paediatric Diseases Based on the Principle of "Shao Yang is the Pivot"

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Abstract: The theory of "Shaoyang as the pivot" is derived from the Yellow Emperor's Classic of Internal Medicine, and reveals the characteristics of Shaoyang as the pivot. Shaoyang is the pivot of the internal and external yin and yang, the internal organs and meridians, the qi flow, and the emotions. Shaoyang is a young Yang and is weak in nature, so it is prone to deficiency and actuality and to cold and heat. Based on the principle of "Shaoyang as the pivot", Zhang Zhongjing proposed that the core pathogenesis of Shaoyang diseases is the incompetence of the pivot, and thus created the representative formula for regulating the pivot of Shaoyang - Xiao Chai Hu Tang. The basic physiopathological feature of children is that the central organ is not favourable. Through Xiao Chai Hu Tang, we can reconcile the central organ of Shao Yang, unify Yin and Yang, access Qi, blood and fluids, and strengthen the spleen and stomach, thus improving the immune function of the body and enhancing environmental adaptability, and ultimately realising "Yin and Yang secrecy" to better serve clinical work.

1. Introduction

The theory of "Shaoyang as the Pivot" is derived from the Huangdi Nei Jing. After combining and developing the theory of "Shaoyang as the Pivot", Zhang Zhongjing created, a representative formula for regulating the pivot of Shaoyang - Xiao Chai Hu. The theory of "Shaoyang as the Pivot" and Xiao Chai Hu Tang have been discussed and studied in depth by successive generations of physicians, resulting in the gradual perfection and maturity of the theoretical system of "Shaoyang as the Pivot" and the further expansion and deepening of the application of Xiao Chai Hu Tang in clinical practice. The aim of this paper is to explore the development and application of Xiao Chai Hu Tang in paediatric clinics under the guidance of the theory of "Shao Yang as the Pivot", and to provide ideas for the clinical management of paediatrics.

2. Theoretical Basis

The theory of "Shaoyang as the pivot" originates from the Yellow Emperor's Classic of Internal

Medicine, "Ling Shu - Root and Knot", which states that the Sun dominates the surface and is the "outer opening", Yang Ming resides in the interior and is the "inner closing", Shaoyang resides between the surface and the interior as the "It is the place of interchange and transformation.

Shaoyang is the pivot, from the human body's point of view, the pivot is the key to the operation of the body's qi, the normal life activities of the human body, and the normal operation of the qi in and out of the inseparable, Shaoyang is the key link in the transfer of yang qi, like a portal door shaft an opening and closing, with the function of regulating the internal and external opening and closing of the body's yang qi, to maintain the normal physiological activities of the human body.

Shaoyang is adjacent to two yang outside and three yin inside, living in the half table and half inside. The "Ling Shu - Meridians" points out that the hand and foot Shao Yang meridians follow a route that connects the five viscera and the six internal organs with the yin and yang, and is an important pivot for the up and down movement of the body's qi. The symptoms of "bitter mouth, dry throat and dizziness of the eyes" are the outline of Shaoyang diseases, in which the opening and closing of the mouth, throat and eyes are exactly the same as the pivotal signs.

Tang - Wang Bing said "Yang Qi is not yet big, so it is called Shaoyang", less, also small. The Su Wen - Yin and Yang Ying Xiang Da Lun (The Great Treatise on Yin and Yang) says that "Shao Huo Qi is the Qi of the human body, with the rising nature of wood, like the rising of the sun, vigorous and thriving, with the meaning of rising and growing. Therefore, its physiological characteristics are characterized by vigorous vitality, but because it is tender and weak, its pathological characteristics are characterized by alternation of deficiency and deficiency, and easy deficiency of heat and cold.

2.1. Shaoyang is the Pivot of Yin and Yang between the Exterior and Interior

The sun is the main surface of the body, for the six meridians of the fence, regulating the Ying and Wei; Yang Ming is the main, the main receiver of decaying water and grain, overflowing essence, for the source of Qi and blood biochemical; Shao Yang lives in the half surface and half, the left is Yang, the right is Yin, Yang is the main open, Yin is the main combined, Shao Yang as the beginning of the three Yang, the pivot of Qi, is the fulcrum of the transformation of Yin and Yang, with neutral, balanced characteristics, can maintain the balance of Yin and Yang and the state, so Shao Yang for the surface and the pivot of Yin and Yang.

2.2. Shaoyang is the Pivot of the Internal Organs and Meridians

The Su Wen says "All eleven organs depend on the gall bladder." The normal function of the five viscera and six bowels is closely related to the qi of the Shaoyang Liver and Gallbladder. In the "Rhinoceros Candle on the Origin of Miscellaneous Diseases", it is said that "all the eleven meridians are harmonised by bile qi." The qi-transformation function of the rest of the body's internal organs must be encouraged by the bile qi in order to regulate and not become ill. If the Shaoyang pivot is harmonious, the Qi of the internal organs will rise and fall in an orderly manner, and there will be a regular flow in and out. If the opposite is true, then all diseases will arise.

2.3. Shao Yang is the Pivot of the Qi Flowing in and Out of the Body

Shao Yang is the channel for the movement of Qi in and out of the whole body. If the pivot is favourable, the Qi and blood of the internal organs will flow through each other, and the Qi will rise and fall in and out of the body normally, thus maintaining the normal physiological activities of the body. The ability of the human body, the outside world and the internal qi flow depends on whether the pivot is open and closed. When the spring qi rises, all things are safe. Shaoyang should respond

to the rising qi of spring, and when the qi is well organized, all the five organs and six bowels are safe. The bile of Shaoyang is the main determinant, deciding the opening and running of the pivot, while the Sanjiao of Shaoyang presides over the qi and communicates with the five viscera and six bowels. If the pivot is favourable, the Qi will open and close in a proper manner; if the pivot is unfavourable, the opening and closing will be out of order.

2.4. Shaoyang is the Pivot of Emotion and Will

The Shao Yang pivot enlightens the Yang Qi, connects the internal organs, regulates the emotions and the will and is the master of decision making [1]. In the Nei Jing, it is written that the human mind is basically governed by the spirit, soul and physique, and in the Su Wen - Yin Yang Ying Xiang Da Lun, it is said that the five organs correspond to the five wills, and if the wills are not adequate or too much, they can affect the corresponding organs and cause illness. In the treatise on strange diseases, it is said, "The liver is the general of the heart and depends on the gall bladder." The five wills and seven emotions of the human body all depend on the bile to make decisions, and the bile can help the liver to drain, so it can be seen that the strategy is measured and does not lose its determination. Shao Yang is the pivot of the emotions and will, stabilising the soul, and when Yin and Yang rise and fall in harmony, the spirit is stabilised and therefore not ill.

3. "Treatise on Typhoid Fever" based on "Shaoyang as the pivot" to create Xiao Chai Hu Tang

The establishment of Xiao Chai Hu Tang was guided by the medical sage Zhang Zhong Jing according to the theory of "Shao Yang as the pivot" in the Nei Jing, aiming to reconcile the pivot of Shao Yang in order to calm Qi and blood and balance Yin and Yang. In the book of Typhoid Fever [2], it is said, "Only Xiao Chai Hu, which reconciles the exterior and interior of the body, is the proper treatment for Shaoyang." In the syllabus of Shao Yang disease, "The mouth, throat and eyes can open and close, and those that open can be seen, while those that close cannot be seen, which is exactly the sign of the pivot [3]." It can be seen that the theory of Shao Yang as the pivot has been extended in depth in the Treatise on Typhoid and indicates that Shao Yang incompetence is the main pathogenesis of Shao Yang syndrome. Therefore, Xiao Chai Hu Tang is the proper treatment for Shao Yang by reconciling Shao Yang and harmonizing the pivot.

Xiao Chai Hu Tang is a representative formula for treating Shao Yang diseases. The original formula consists of Chai Hu, *Scutellaria baicalensis*, Ginseng, Radix et Rhizoma pentaphyllum, Radix et Rhizoma ginger, and Jujube. Chai Hu is the main herb of Shao Yang and is bitter and slightly cold in nature. It has the function of harmonizing Shao Yang and relieving depression in the liver. The Shaoyang meridian is located between the half-appearances and the half-liberties, so Chai Hu reconciles the exterior and the interior, and can penetrate the exterior and subdue heat. The Shen Nong Ben Cao Jing [4] states that it has the effect of "pushing out the old and bringing in the new". Chai Hu is endowed with the vital energy of spring, and its main purpose is to push up the old to bring in the new. It is to lower the yin and raise the yang, which also contains the theory of the rise and fall of yin and yang [5] can be seen that the pharmacology of Chai Hu is in line with the nature of "Shao Yang as the pivot". *Scutellaria baicalensis* is bitter and cold in nature and can release heat from the gall bladder and internal organs of Shaoyang. The combination of Chai Hu and *Scutellaria Baicalensis* creates a basic framework for the reconciliation of Shao Yang, with Chai Hu being light and clear, ascending and dispersing, and *Scutellaria Baicalensis* being bitter and cold, descending and draining, both of which are used in conjunction with each other to achieve the function of reconciling the pivot. The combination of Radix Panax and Ginger is intended to subdue the turbid yin. The combination of ginseng, licorice and jujube is to support the righteousness and to transport

the spleen, so that the spleen rises and the stomach descends and the Shaoyang pivot is harmonized. Xu Lingtai said, "The beauty of Xiao Chai Hu Tang lies in the ginseng", emphasizing the role of tonicity. This formula combines pungency, warmth, bitterness, coldness, sweetness and calmness in one formula, which has the effect of bridging the internal organs, qi and blood, yin and yang, and reconciling the pivotal mechanism, making it a rare and effective formula. "In typhoid stroke, there is evidence of Chai Hu, but only one symptom is seen, not all of them are necessary." This formula can be used to treat any condition in which the main pathogenic mechanism is disharmony of the cardinal organs, thus greatly expanding the therapeutic scope of Xiao Chai Hu Tang.

4. Application of Xiao Chai Hu Tang in Paediatric Diseases

4.1. The Child's Body is Endowed with Less Yang

Wan Quan of the Ming Dynasty first proposed that "the child's body is endowed with less Yang", and the Secret of Infant Care said: "Spring is the Qi of less Yang, the reason why all things happen. The child is born like the sprout of grass and trees, and is subject to the first breath, and its breath is in full bloom, and the breath of the less Yang is growing and has not yet." The process of yin filling and yang growing reveals that the child is like the sprout of grass and wood growing rapidly and tending to mature. The term "pure yang" refers to the fact that yang energy is not yet mature. The child is endowed with the qi of spring, like the sprouting of grass and trees in spring, and its growth needs to be propelled by yang qi. Although they develop rapidly and are vigorous, they are not full, perfect and mature, so their kidney qi is not yet full, their stomach qi is not invigorated, their spleen is weak, their lungs do not receive enough qi, their bile qi is weak, and when evil invades them, it is difficult to resist. Therefore, the pathology of children is characterized by "easy cold and easy heat" and "easy deficiency and easy solidity". "The growth of Yang energy in children is also supported by the moistening of the unformed Yin fluid in the body. Only when Yin and Yang are attained can the child grow healthy and strong.

4.2. Paediatric Exogenous Fever

The fever evidence of external influenza is a common and frequent disease in children. Xiao Chai Hu Tang reconciles the exterior and the interior, supports the righteousness and dispels the evil, and has significant advantages in the treatment of external fever in children. The Treatise on Typhoid Fever says: "For those with typhoid fever for five or six days, with stroke, with cold and fever to and fro, or with cough, Xiao Chai Hu Tang is the mainstay." Ma Yongjian [6] used Xiao Chai Hu Tang with addition and reduction (Composition: Chai Hu 24g, Scutellaria Baicalensis 9g, Radix Scutellariae 9g, Radix et Rhizoma Glycyrrhizae 9g, Radix Codonopsis Pilosulae 9g, Radix Ginger 9g, Jujube 4) to treat fever in children with exogenous fever, and the fever subsided and the body cooled down after taking one dose of the medicine. Li Xumin [7] added Xiao Chai Hu Tang to conventional treatment to treat 100 cases of fever with external sensation in children. The results showed that the treatment group (total effective rate 96%) was better than the control group (total effective rate 83%), and the difference was statistically significant ($P < 0.05$). Professor Liu Du Zhou believes that in a weak person, the Wei Qi is not solid, so when the evil Qi invades the body, it can directly invade between the couples, for this disease, Xiao Chai Hu Tang has good therapeutic effect. In children, Yang often has a surplus, but children's internal organs are delicate and tender, so they are susceptible to external influences and can easily enter the interior and turn into fever.

4.3. Nocturnal Cough in Children

Typhoid cloud: "blood weakness gas exhausted, the coup open, the evil gas because into, and the right qi fight, rest made sometimes, Xiao Chai Hu Tang main." Western medicine considers coughing to be a protective response to respiratory tract stimulation, while Chinese medicine considers it to be a manifestation of positive qi driving evil out, which is exactly in line with the pathogenesis of Shaoyang disease in which positive and evil fight each other [8]. Nocturnal cough is mainly violent at 0:00 at night, with coughing of phlegm or no phlegm. According to TCM, the time of the zi zhi is the time when yin and yang meet, which is half of the surface and half of the interior, so when the evil causes the disease, the method is to reconcile the Shaoyang pivot and take into account other organs, then the disease can be easily removed. Tuo Yue-Ling [9] applied Xiao Chai-Hu Tang with addition and subtraction to treat 100 children with nocturnal cough, and the total effective rate was 92.0%. "In case of cough, remove ginseng, jujube, and ginger, add half a liter of Wu Wei Zi and two taels of dried ginger" is a precedent for treating Shao Yang evidence of concurrent cough, and its core idea is worthy of reference and consideration.

4.4. Paediatric Abdominal Pain

In children, "the liver is always in excess and the spleen is always in deficiency". Most clinical cases of abdominal pain are caused by the liver and spleen being unhealthy due to the liver-wood multiplying the spleen and the spleen not being healthy. Xiao Chai Hu Tang, on the other hand, harmonizes Shao Yang and bridges the yin and yang of the Qi and blood of the viscera, so that the abdominal pain is cured when the yin and yang are regulated and the Qi flow is smooth. Tang Chuanfeng et al. [10] treated 40 cases of mesenteric lymphadenitis with Xiao Chai Hu Tang with addition and subtraction, the result: 26 cases were cured, 10 cases were effective and 2 cases were ineffective, the total effective rate was 90.0%.

4.5. Paediatric Constipation

The Su Wen - Yin and Yang Ying Xiang Da Lun said, "Clear yang comes out of the upper orifice, and turbid yin comes out of the lower orifice." If the pivot of Shao Yang is unfavourable, the drainage and descending function of the biliary organs is out of order, the clear qi does not rise, the turbid qi does not descend, the food stops gathering in the middle jiao, heat accumulates in the intestines and stomach, injures the fluid and drains the intestines, the bowels are dry, then the stools are constipated and difficult to go down. If Shao Yang is affected by evil, the internal qi is stagnant, the circulation and descending functions are not in order, and the dregs are stagnant inside, so constipation occurs [11].

The three jiao is the channel for the transmission of water and fluids. If the hand and foot of Shao Yang are interlinked, the pivot is harmonious, the biliary organs and the San Jiao function normally, then the water and fire qi can rise and fall in and out in a proper manner, the fluids are distributed in an orderly manner, the five viscera and six internal organs are nourished, so the stool can go down on its own. Hu Xiju believes that "Xiao Chai Hu Tang has the function of passing stools, by reconciling the Shao Yang pivot, draining the chest, raising the clear and lowering the turbid, making the conduction normal; also by regulating the water-liquid metabolic channels, so that the water-liquid is distributed in an orderly manner, the internal organs are nourished in a proper way, the internal qi is drained and lowered as normal, the large intestine is moistened, the dregs go down, and constipation disappears [12]. To sum up, that is, the Shao Yang is open, the qi is relaxed, the spleen rises and the stomach descends, the clear yang rises and the cloudy yin descends, constipation can be eliminated. Li Wenxing [13] treated 50 children with functional

constipation with Xiaochaihu decoction dialectical addition and subtraction combined with bifidobacterium Lactobacillus triple viable tablets. The results showed that the total effective rate of treatment in the observation group was 98%, which was significantly higher than that in the control group, which was 72%, and the difference was statistically significant ($P < 0.05$).

4.6. ADHD in Children

Modern medical practitioners believe that the main cause of ADHD in children is an imbalance between yin and yang, where yin and yang cannot achieve relative balance. The imbalance of yin and yang can be blamed on the non-pivot of Shaoyang. The Su Wen says: "All eleven organs depend on the bile as well." The Treatise on the Spleen and Stomach adds to this by saying, "Bile is the Qi of Shao Yang rising in spring, and when spring Qi rises, all things are at ease. Therefore, when the gall bladder rises in spring, the rest of the organs follow it. The bile is the official of the middle right, and is the master of determination. It can determine the initial rise of yang qi and is the source of its initial movement [14]. The Compilation of Meridians and Collaterals says: "The Gall Bladder is also tantalizing, the house of purity, receiving nothing and losing nothing, blandly so." The purity of the bile corresponds to the innocence of the child after birth, and therefore the child is of the nature of Shao Yang. The bile secreted by the gall bladder is part of the formation of bile qi. If the gall bladder loses its determination, it will manifest itself in the form of a strong temper and a small gut. If they do not have enough bile and determination, they will be hesitant to do things, afraid of the dark, and even timid to step into small ditches. Yang transforms qi and yin forms. Poor flow of qi and water can in turn affect the balance of yin and yang in the body. If any of the three jiao does not work, the flow of qi and water will be blocked, followed by changes, resulting in qi depression, water stagnation, phlegm blockage, which will turn into fire and heat in the long run, eventually leading to mutual restraint of yin and yang. The hand and foot Shao Yang interlinked, interaction, then the pivot and benefit, Yang Qi can lift in and out in an orderly manner, fluid transmission run as normal [15]. If the transportation of Shaoyang Qi is not smooth, the Yang Qi will be obstructed, and this will lead to an imbalance between Yin and Yang, and children will show symptoms of inattention and hyperactivity.

Due to modern social development, increased educational requirements, and the mother's emotional and moral damage during pregnancy, children also tend to have many manifestations of liver depression and qi stagnation, which can also lead to hyperactivity if liver qi is depressed for a long time. In the Su Wen. The Six Sections of the Organ and the Elephant: "The liver is the essence of the extreme, and the residence of the soul." The liver is responsible for draining the qi, and if the qi of the whole body is unblocked, the fluids will be distributed and the organs will function normally, so that yin and yang will be kept secret. The regulation of emotions is also dependent on the draining of the liver qi. If the emotions are chronically unrestrained, the liver qi will not be relaxed and the body's qi flow will be affected, resulting in frequent sighing in many children. The draining function of the liver also affects the secretion and excretion of bile, which is produced by the residual qi of the liver. If the liver is affected by emotions, and if the liver qi is depressed and cannot be drained, bile will not be formed. Bile is bitter, and its bitterness tends to go down, restricting the rise of liver qi. If the bile is not full, the liver will rise too much and the child will show symptoms of an eager temper but little guts. If a child suffers from hyperactivity caused by liver stagnation and qi stagnation, Xiao Chai Hu Tang with addition and subtraction can be used to treat the condition. Xiao Chai Hu Tang is a representative formula of Zhong Jing's typhoid fever remedy to reconcile Shao Yang, which was described by Ke Yun Bo as "the pivotal agent of Shao Yang" and "the general formula to reconcile the exterior and interior". This formula combines pungent, warm, bitter, cold, sweet and flat in one formula, which is effective in reconciling Shao

Yang and unblocking the pivot [16].

5. Summary

Shao Yang is located between the half-surface and half-ribs of the body, which is the "middle position". When the body becomes ill, it is only a matter of changes in the pivot mechanism. When the Shaoyang pivot is open, the internal organs will be open and closed in a proper manner, thus ensuring the dynamic balance of the body. It is only through continuous deep excavation and innovation that the theory of "Shaoyang is the pivot" can be better utilised, and the role of Xiao Chai Hu Tang in reconciling the pivot can be fully utilised to better guide clinical work.

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