

An analysis of the application of ephedra in the “Danxi Xinfā”

Xinyue Kou*, Yaru Wang

Shandong University of Traditional Chinese Medicine, Jinan City, Shandong Province, 250000, China

*Corresponding author

Abstract: The application of ephedra in “Danxi Xinfā” is unique, so based on the ephedra-containing formulas in “Danxi Xinfā”, we discuss the application of ephedra. Zhu Danxi is very particular about the use of ephedra, and the article analyzes the different dosages, concoctions, and compounding of ephedra in “Danxi Xinfā”.

Keywords: Danxi Xinfā, ephedra, dosage, concoction, application rule

1. Introduction

Ephedra, also known as Peixiang, Longsha, etc., “this scripture” that it is suitable for “stroke, headache, warm malaria,” with “published sweating, to remove the evil heat, to stop coughing on the in addition to the cold and heat, breaking the crux of the firm accumulations,” and so on. It has been widely used in the treatment of internal and external diseases, gynecology and pediatrics, and has been respected as a good medicine for sweating and eliminating swellings by medical practitioners of all while Zhu Danxi, a Jinyuan medical practitioner, has unique experience in the application of ephedra, and his theory is detailed in “Danxi Xinfā”.

Table 1 Formulas containing ephedra in “Danxi Xinfā”

Disease syndrome	prescription	consumption	Processing
apoplexy	Stroke	---	
	Formula One		
	Stroke	---	
	Formula 2		
	Wuyao	Two two	Go Festival
	Shungi Powder		
	Xiao Xuming	One or one	Go Festival
fever	Soup		
	Dissolve the		
	Wind	two coins	
Spotted rash	Hundred		
	Di Gu Pi San	---	
asthma	Tiaozhong	Half a penny	
	Soup		
	Tongsheng	One or two	
Athlete 5 foot	San		
	Asthma prescription one	---	
	Decoction of Three Crude	---	
	Drugs		
	Xiaoqinglong	Three or three	Go Festival
	Soup		
	Huagai San	One or two	
	Jiubao Soup	---	
	Wujisan	Three or three	Go Festival
	Ma Huang	---	
	Zuo ling Tang		

The “Xin Fa” (hereinafter referred to as “Xin Fa”) contains Zhu Danxi’s medical experience and insights, discussing the twelve meridians and typical diseases and miscellaneous diseases of various disciplines, and ephedra in the treatment of stroke, chills, rash and other five types of diseases in the fifteen formulas have appeared, with dosages ranging from one half a penny to one or two, and also additions and reductions, which can be seen in the application of ephedra of the flexibility of the

therefore, we try to collate the formulas containing ephedra in the Xin Fa (Table 1) to explore its rules of application from the aspects of clinical application, dosage, and preparation, in order to benefit the clinical application of ephedra. Therefore, we tried to organize the formulas containing ephedra in Xin Fa (Table 1), and explored its application rules in terms of clinical application, dosage and preparation, with a view to benefiting the clinical application of ephedra.

2. Clinical Application

2.1 Stroke

According to the theory of "Xin Fa", "Stroke is mostly caused by blood deficiency with phlegm, treating phlegm as the first step, and then nourishing blood to promote blood circulation; on the left side, it belongs to death and blood stasis; on the right side, it belongs to phlegm, and there is heat and qi deficiency", and it also says, "Dampness generates phlegm, phlegm generates heat, and heat generates wind^[1]." Zhu Danxi believes that stroke is mostly blood deficiency with phlegm, the root of which lies in the Yin deficiency of the liver and kidney. Kidney is a water organ, the main fluid, regulating the operation of the body fluid, kidney deficiency is water flooding, phlegm. Gas knot is born phlegm, phlegm is full of gas more knot, the liver qi regulation of fluid with the gas and smooth, no stagnation of worry, phlegm disease is not born. At the same time, Zhu Danxi attaches importance to the spleen and stomach in his treatment, and believes that the spleen and stomach are the source of phlegm and the pivot for the elevation of qi. Therefore, regulate the spleen and stomach to achieve smooth qi and eliminate phlegm.^[2]

Stroke formula 1 shows that the disease is paralysis left, the pathogenesis is stagnation of qi, blood circulation is not smooth, holding phlegm and wind, the treatment is mostly used to benefit qi and blood method. In the formula, Fangfeng is paired with Jingwu to dispel wind; Qiangwu disperses cold, dispels wind, removes dampness, relieves pain, and is also a medication for inducing menstruation; Nanshing, Houpu, and Platycodonopsis resolve phlegm, and phlegm eliminates the wind; Frankincense, myrrh, and Mutong dredge the meridians and channels, and invigorate blood circulation and the veins; and ephedra is said in Changsha Pharmacological Interpretation to be: "It enters the hand-taiyin lung meridian and the foot-sun bladder meridian. It enters the lung family and lines the qi division, opens the pores and reaches the skin." Therefore, it is good to go to the surface of the muscle to dispel the evil, but also deep into the veins, no matter how, but also because of its nature of pungent and warm can be able to travel can be dispersed, good to go, so it can be broken through the firm build-up, through the adjustment of a body of qi and blood, so that blood stasis to be dispersed, the disease is removed.

Stroke formula 2 mostly uses bitter, cold and heat-clearing products such as *Scutellaria baicalensis*, Yang Qi is impassable and blood veins are paralyzed, so ginseng and epiphyllum products are added. According to Zhu Danxi, "If there is much heat in Qi deficiency, it is advisable to use less *Radix et Rhizoma Ginseng* to carry out the function of ginseng." In the formula, three slices of *Radix et Rhizoma Polygoni Multiflori* perform the function of benefiting the qi of ginseng. Ephedra helps ginseng and epiphyllum to promote yang; antifungal *Qiangwu* dispels wind; nanxing, cangzhu resolves phlegm; chuanxiong invigorates blood and promotes qi, dispels wind and relieves pain; angelica replenishes and invigorates blood, and Rihua Zi Ben Cao (The Materia Medica of the Rihua Zi) says: "It treats all winds and blood, replenishes all labors, breaks up bad blood, nourishes new blood, and masters symptoms and fetishism." Compared with the stroke formula one, formula two uses cold and hot medicines mixed, while formula one uses relatively calm medicines.

Wu Yao Shun Qi San for treating stroke due to seven emotions. Internal injuries of seven emotions lead to deficiency of true qi first, and evil qi takes advantage of the deficiency to enter the body. If a person suffers a stroke due to seven emotions, the method should be to regulate qi, not to treat wind. In the formula, Wu Yao is used to regulate the rebellious qi, Wu Yao is pungent, warm and fragrant, it is a wonderful product for dispersing qi, Ephedra, *Platycodon grandiflorus* to promote the lung qi, the lung is the master of qi, the lung qi is through the qi of the body is through, *Ligusticum chuanxiong* and *Angelica dahurica* and blood qi and dispersal of wind, Chuan peony is the qi medicine in the blood, it is good at dispersing the qi and the depression of qi, *Angelica dahurica* is an aromatic and beneficial to the orifices as a sacred medicine for dispersing the wind, and if qi is rebellious then it will give rise to phlegm, so it is used to regulate the qi and resolve phlegm by using the skin of Chen Pi and the shell of the cumulus shells, the White stalactites are to disperse knots and eliminate phlegm by dispersing the wind and the dried ginger is to warm up and pass Yang. *Glycyrrhiza glabra* is used to neutralize the middle, and ginger and jujube are added to harmonize Ying and Wei.

Small Life Renewal Soup is used to treat external wind attacking stroke, feeling the external wind, the body's positive qi is insufficient, the wind evil takes advantage of the deficiency to enter, the treatment should be to dispel the wind and cold, to support the positive and remove the dampness. In this formula, ephedra is good at sweating and relieving cold. Combined with ginger and cinnamon stick, it disperses wind, cold and dampness on the surface of the muscles and meridians, and passes the pain in the veins to help prevent wind.

Fangfeng is good at dispelling wind and dampness, dispersing cold pain, antispasmodic, but also rests the wind to stop spasm, the treatment of wind universal. Ginger is good for sweating and relieving epidemics, warming the middle and removing dampness. Gui Zhi is good at dispersing cold and relieving pain, warming the blood. Fangji is good at dispelling wind-dampness, relieving pain, clearing heat and inducing diuresis. Bitter almonds are strong, good at lowering qi and relieving coughs, as well as relieving muscle and promoting the dampness of the lung meridian. Ginseng is good at benefiting Qi and strengthening the license plate; licorice is good at benefiting Qi, strengthening the spleen and harmonizing the middle; the two medicines are combined to benefit Qi and strengthen the middle. Rhizoma Ligustici Chuanxiong is good at promoting blood circulation, dispersing wind and relieving pain; Paeonia lactiflora is good at tonifying blood and astringing yin, softening the liver and relieving pain; the two herbs together not only regulate and harmonize blood, soften the liver and relieve pain, but also combine with licorice to relieve pain. Radix Pilosulae Sinensis is very hot, dry and pure yang, good at assisting yang and replenishing fire in order to increase the power of assisting positive qi, and expel wind, cold and dampness to increase the effect of dispelling evil. Scutellaria baicalensis is bitter, cold, clear and dry, not only clearing heat and drying dampness, but also preventing warmth and dryness from injuring yin and blood.

2.2 Asthma

According to Zhu Danxi, "all diseases are caused by phlegm", phlegm is the root of asthma, and phlegm in the human body is the foundation of asthma. Regarding the phlegm-beverage triggered asthma, Zhu Danxi believes that: a deficiency is the root of asthma, the cause of asthma recurrence is not only related to the real evil, but also depends on the deficiency of the lungs and kidneys. Lung is the main gas, lung gas deficiency is not enough gas, people gas, kidney is the main gas, kidney deficiency is out of control, wheezing. If the lungs are weak, they can not regulate the water channels, and the fluid will be gathered into phlegm; if the kidneys are weak, they are not in charge of the water, and they can also be transformed into phlegm. Three improper diet leads to spleen deficiency, the spleen is not healthy, phlegm and turbidity, the upper dry in the lungs or emotional stimulation, the liver is not detoxified, the fluid is not distributed, and condensed into phlegm; four within the ambient phlegm, the evil spirits and hair.

For San'ao Tang, it is used to treat coughs of wind-cold syndrome by removing the surface and sweating with pungent warmth in Xin Fa. Almond is bitter and warm in nature, entering the lung meridian, warming and dispersing cold in the lung, lowering qi and settling wheezing. Licorice is pungent, sweet, dispersing and detoxifying, used in raw form to tonify the body. In the formula, ephedra stays in the joints, there is collection in the hair, because the main effect of San'ao Tang is to promote the lung to stop cough and asthma, not sweating, ephedra is unique in this formula to promote the asthma, with almonds to lower the gas and resolve phlegm to stop cough, ephedra is strong and almonds are soft and moist, the two medicines are used together, one promotes the other lowers, and just come to help each other, and increase the effect of calming asthma and stopping cough, and then add licorice to slow down both ephedra's dispersion, and slow down the cough.

Xiao Qing Long Tang is used to treat external cold and internal drinking. Gui Zhi detoxifies the surface and helps Yang to dissolve the internal fluid; Gan Jiang and Xin Xin warm the lung and dissolve the fluid; Wu Wei Zi astringes the lung and stops coughing; Paeonia lactiflora harmonizes and nourishes the blood; Semixia dissolves phlegm and lowers the rebelliousness; Glycyrrhiza benefits the qi and regulates the middle, and regulates the various medicines. In the formula, the pungent and warm nature of ephedra has the function of warming Yang qi, and sweating and relieving the symptoms, promoting lung asthma, and at the same time to facilitate water.

Hua Gai San promotes the lungs and relieves epidemics, dispels phlegm and relieves cough, and treats cough and asthma caused by wind-cold attacking the lungs. The Heart Method describes its symptoms as "coughing with cold, chest fullness and heavy voice." Almond reduces qi, relieves cough and calms asthma; Perilla frutescens, Sang Bai Pi reduces qi and resolves phlegm, relieves cough and calms asthma, and also diarrhoea of lung heat; Poria, Chen Pi strengthens the spleen, dries dampness

and resolves phlegm.

Licorice harmonizes all medicines. The formula of ephedra can not only open the coupling in order to sweat the surface, but also open the lung gas in order to dissipate the wind and cold in the lung meridian, and almonds with the strengthening of the asthma ^[4].

Nine Treasures Soup is used to promote lung dispersal, resolve phlegm and relieve cough, treating the symptoms of wind-cold and surface solidity. In the formula, ephedra promotes lung and disperses cold; Chenpi, perilla seeds, Sangbaipi drains the lung, reduces qi and transforms phlegm; almonds promotes lung and relieves cough and transforms phlegm; Gui Zhi disperses cold and mint disperses wind and relieves cough; Dabao Pi, jujube moves qi and strengthens the spleen and transforms phlegm, and ginger and licorice promotes lung and transforms phlegm and relieves cough; all the medicines are paired together, so as to relieve the evils of cold, and the lung qi can be promoted.

2.3 Spots and Rash

The heart method" on spot and rash difference "spot is colored points and no head grain is also, rash for floating small and head grain." Because "spots are caused by wind-heat and phlegm, from the inside out; spots like typhoid fever, phlegm-heat disease in the outside; rashes are caused by heat and phlegm in the lungs." At the same time, Zhu Danxi defined spots and categorized them into yang spots, yin spots and internal injury spots.

Zhu Danxi applied the treatment of toning the center of the soup to treat yin spots caused by internal injuries and external infections. According to "The Heart Method", "when internal injuries cause spots, the stomach qi is weak, and the fire of the whole body marches to the outside; and when yin syndrome causes spots, the fire, which has no root and is out of control, gathers in the chest, and smokes the lungs, then spreads to the skin and becomes spots." The treatment should be tonifying and subduing, and should regulate the middle and warm the stomach, so that the fire will come down and the spots will subside. In the formula, *Atractylodes macrocephala*, *Pericarpium Citri Reticulatae*, *Radix Pseudostellariae Alba* and other medicines regulate qi and strengthen the spleen, dissolve dampness and eliminate stagnation as well as clearing heat. Ephedra is intended to sweat and relieve the surface, relieve the muscles and reduce fever, so that the wind-heat from the surface can be relieved, thus restoring the qi of the spleen and stomach.

Zhu Danxi applied Tong Sheng San to treat spotted rash caused by exogenous wind-heat and phlegm, where the wind-heat ambushes the lungs, strangles the camps internally, stagnates in the blood channels and injures the muscle surface. Tong Sheng San has the function of dispersing wind and relieving surface, detoxifying and transmitting rash. Fangfeng, ephedra for the relief of surface medicine, wind-heat in the skin, get from sweat and leakage, jingxiao, peppermint clear on the wind-heat from the nose leakage, talcum, gardenia clear heat and diuresis, watercourse medicine, wind-heat in the decisive ditching, leakage by drowning, rhubarb, mange, wind-heat in the stomach and intestines, get from the back and leakage, gypsum, platycliffus clearing lungs and stomach medicines, conchiolus, scutellaria to clear the heat, detoxification and diarrhea of fire, get rid of fire of the meridians. Heat and toxin burns the blood and drains the qi, and sweating also easily injures the body. Chuanxiong, *Angelica sinensis*, *Paeonia lactiflora* and the liver and blood, *Glycyrrhiza glabra* benefit the qi and the middle and harmonize the herbs, *Atractylodes macrocephala* harmonizes the qi and the stomach to strengthen the spleen.

2.4 Middle Cold

Cold evils enter directly, leading to sudden onset of illness. Zhu Danxi applied the treatment of middle cold by eliminating wind and dissolving it. Wind-cold evil qi invades the muscle surface, resulting in occlusion of the pores, Yang qi being trapped in the body and unable to come out, and lung qi not being propagated. Injured wind, it is appropriate to dissolve the muscle, and unfavorable lung qi, it is appropriate to benefit the qi. Thorny mustard detoxifies the surface and disperses wind, *Angelica dahurica* disperses wind and opens the orifices, both of which are used to detoxify the muscle; Chen Pi strengthens the spleen and promotes the circulation of qi, Cang Zhu dries dampness and strengthens the spleen and promotes the circulation of qi, disperses wind and disperses cold, and licorice replenishes the spleen and benefits the qi. In the formula, ephedra sweats to relieve the surface, open the closed pores, "Shennong Ben Cao Jing Shu" said: "Ephedra light to promote dispersal, so specializing in the treatment of wind and cold in the surface of the evil." In addition, ephedra is good at promoting lung qi, long for descending and calming asthma, cold lung qi is unfavorable.

2.5 Foot odor

Modern scholars summarize the exposition of successive medical doctors on the etiology of foot qi disease, divided into: one for the external dampness and wind poison, two for the diet and fatigue internal injuries, and three for the external and internal injuries at the same time [5]. For the wind and poisonous evil why the first foot, the "preparation of emergency Qian Jin Yao Fang" said: "the wind and poisonous gas, are from the ground, the ground of the cold, heat, wind and dampness are for steam, feet often walk, so the wind and poison in the people, will be the first in the foot".

The Heart Method says, "Foot qi must be treated with medicines that elevate and lift its dampness, and medicines are used according to qi and blood." The treatment method of Wuji San is based on the middle jiao, so that the spleen and stomach can be healthy, and on this basis, the cold and dampness can be dispersed externally and the blood can be regulated internally, so that all the symptoms can be cured. This formula is based on Er Chen Tang Chen Pi, Pinellia, Poria and stomach to lower the inversion, expelling dampness and resolving phlegm; Gan Ginger, Cinnamon warms the spleen and stomach, disperses cold and strengthens the spleen; Hou Pu, Hovenia, Platycodonopsis regulates the spleen and stomach, elevates and lowers the qi mechanism, and resolves phlegm and eliminates plumping. The three types of drugs are paired together in order to revitalize the middle jiao and elevate the qi. On this basis, Ephedra, Rhizoma Atractylodis Macrocephalae and Angelica Dahurica are used to expel wind and dispel cold and dampness to treat cold and dampness on the surface of the muscles; Angelica sinensis, Rhizoma Ligustici Chuanxiong and Paeonia lactiflora nourish the blood and blood and regulate the meridians to treat stagnation of meridians and collaterals; and Licorice is used to benefit the qi and regulate the medicines. The efficacy of ephedra is not only combined with Gui Zhi to expel cold from the surface, but also with Platycodon grandiflorum and Chen Pi to open the lung to expel phlegm. It can relieve dampness and wind toxicity externally and clear phlegm-dampness and stagnation internally, so as to cure the foot fungus.

Ephedra Zuo Jing Tang is the main treatment for foot qi caused by wind, cold, summer and dampness flowing into the foot solar meridian, the foot solar meridian has the widest distribution, contact with all the meridians, if you feel the evil of wind and cold, the foot solar meridian is the first to bear the brunt of wind and cold condensation of the meridian, the meridian qi run out of order. The circulation of the foot-sun meridian goes from the head to the foot, so when the foot-sun meridian suffers from evil, it develops into foot qi. Cold and dampness in the meridian is treated with ephedra, gui xin, xin xin, qiang hu, feng feng and feng feng, warming the meridian and dispersing cold, dispelling wind and dampness in order to alleviate paralysis and relieve pain: gerbera root, atractylodes, poria, ginger and jujube are used to elevate yang and dissolve dampness in order to strengthen and transport the spleen and earth. Surface and inside the same treatment, taking into account both good and evil, can not only promote the spleen yang, so that the internal dampness out of the surface of the muscle to solve, but also appropriate lung transport spleen, guide the water and dampness of the evil from the urine and go. This way, the surface and the inside can be divided and eliminated, and the effect of releasing and dispelling dampness, promoting paralysis and relieving pain can be achieved.

2.6 Heat Disease

The Heart Method uses Di Bao Pi San to clear heat and generate fluid, remove vexation and quench thirst in treating strong heat all over the body, with long and slippery pulse, yang toxicity and fire blazing, and thirst. This formula treats heat in the camp, the formula uses Zhimu and Gypsum to clear away the actual heat, diarrhea the fire and remove the vexation and quench the thirst. Chai Hu and Poria clear heat from the liver and gallbladder, clearing heat and inducing dampness. Qiangwu and Ephedra are used to expel heat by sweating and help clear away heat. Bone Skin can reduce deficiency heat and bone vapor, Poria can calm the heart and tranquilize the mind, and Radix Rehmanniae can nourish yin and reduce heat. These three herbs not only clear heat but also nourish yang, so as to avoid clearing too much heat and injuring Jin. The combination of all the medicines together to play the effect of clearing heat and promoting the production of fluids, eliminating annoyance and quenching thirst, so that the evil heat to go, the yin fluid to come back, the symptoms of self-healing.

3. Dosage

In order to correctly convert the dosage of medicines in Xin Fa, it is necessary to understand the ancient Chinese system of weights and measures. In the Tang Dynasty, there were clear regulations on

weights and measures, which were categorized into the big system and the small system. In the Song, Jin and Yuan Dynasties, the system of weights and measures was inherited from the Sui and Tang dynasties [6], and if a large system is used in a formula, the dosage of the drug is specifically stated as large catty, large two, large liter, etc., and those that are not labeled as a small system. There is no record of big catty, big two, etc. in "Xinfa", so it can be seen that the small system is used for drug dosage in "Xinfa". According to the "Taiping Huimin Hejiaobu Fang" records, "the formula where the word points, that is, two and a half cents for a point. Where the word both, that is, four points for one or two. Where it says catty, that is, sixteen taels for a catty." It can be concluded that the small system of the Song Dynasty conversion rules are: 1 catty = 16 two, 1 two = 4 points, 1 point = 2.5 money [7]. According to the small system of weights and measures can be derived: 1 tael = 13 to 13.42 g (retain two decimal places), 1 cent = 3.25 to 3.36 g (retain two decimal places) 1 money = 1.3 to 1.34 g (retain two decimal places). According to this conversion method, the dosage of ephedra is 39-40.26 g in Xiaoqinglong Tang and Wujiashan; 13-13.42 g in Xiao Renewal Tang, Tongsheng Shanshan and Huagai Shanshan; 26-26.84 g in Wuyao Shunqi Shanshan; 2.6-2.68 g in Zhiizhong Tang; and 0.65-0.67 g in Wufeng Baisai Shanshan; it can be seen that there are small and large dosages of ephedra in the use of ephedra in Zhu Danxi's work, and the analysis shows that Zhu Danxi's large dosages were divided into two. It can be seen that Zhu Danxi's large dosage of ephedra highlights its efficacy in sweating and relieving the symptoms, promoting the lungs, calming asthma and inducing diuresis. The small dosage of ephedra in large doses is because all the diseases treated are like deficiency of positive qi, and ephedra has the disadvantages of depleting qi, injuring yang and robbing yin, and the continuous use of ephedra is easy to injure the qi of the human body. Small dosage is not mainly used for relieving symptoms, but to expel cold with the pungent and warm nature of ephedra and to relieve symptoms.

4. Concoction

Zhu Danxi contains ephedra formula in Xiaoqinglong Tang and Wuzhisan "to remove the section". Zhang Zhongjing, "Treatise on Typhoid Fever" of the Eastern Han Dynasty, was the first to propose that ephedra should be used "to remove the joints", Tao Hongjing said: "Ephedra is used to remove the joints, and the joints stop sweating." It can be seen that ephedra with joints has weak sweating power, and removing the joints makes sweating. It can be seen that the power of ephedra with section sweating is a little weak, and the power of sweating is stronger when the section is removed. This paper finds that Zhu Danxi urgently needs ephedra to drive away evils by sweating, mostly by "removing the joints", and mostly by "not removing the joints" for those who are internally injured and externally infected and need to take into account the positive qi. In addition, Zhu Danxi found that there is a relationship between the dosage of ephedra and whether or not ephedra is removed. The greater the dosage of ephedra, the greater the proportion of "removed".

5. Conclusion

Throughout the book 'Danxi Xinfa', Zhu Danxi's clinical application of ephedra is flexible and unique. Ephedra enters the Taiyin lung and the foot-sun bladder meridians, and treats two meridian-related diseases, such as asthma caused by unfavourable lung qi, and foot-sun meridians affected by the evil of foot odour. In fact, the twelve meridians of ephedra are everywhere, the development of yang qi is the root of the role of ephedra, 'Materia Medica Chong Yuan' said 'the sun's qi, the bladder cold water, and qi travelling to the head, peripheral in the body of the hair orifices. It is said that the evil of wind and cold, the disease of the sun high surface of the gas 'know ephedra can cure typhoid headache stroke, ephedra main sweating and relief of the surface, the treatment of warm malaria, the kidney for warm malaria disease hidden internal organs, ephedra can start the water gas and peripheral in the skin and hair, to go to the evil of the heat of the gas, ephedra main open the coupling of the holes and orifices, so that the wind and cold dispersal, in the gas can be solved from the skin and hair, the treatment of the wind and cold of the evil, occlusion of the hair and orifices, gas is not sparse in and coughing up the gas. It is used to treat wind-cold evil, blocking the hair orifices, and coughing up air when the internal air is not sparse. Ephedra main body outside of the cold and heat, the sun's gas in and out of the middle earth, the treatment of cold and heat outside of the not removed, so that the middle of the earth's gas can not reach the outside, and sent for the disease of solid accumulation. Zhu Danxi in the 'method of the heart' in addition to the treatment of ephedra often go two meridians, in-depth twelve meridians to explore the application of ephedra, can be said to be a unique experience.

References

- [1] Mo Lingli, Xin Zhengang, Zhou Yuancheng, Zhao Yiyu, Yang Ke. *Research on the medication rule of ancient Chinese medicine literature for stroke based on data mining [J]. Clinical Research of Traditional Chinese Medicine*, 2022, 14 (29): 80-84.
- [2] Zhao Dongkai, Li Ruonan, Liu Junnan et al. *Analysis of Asthma from "Danxi Heart Method" [J]. Journal of Changchun University of Traditional Chinese Medicine*, 2023, 39 (06): 602-605. DOI: 0.13463/j.cnki.cczyy.2023.06.004
- [3] Li Wei. *Understanding and Application of San Ao Tang in Cough Treatment [J]. Modern Medicine and Health*, 2012, 28 (22): 3484-3485.
- [4] Chen Qiaonan, Su Canyu, Wang Chen et al. *Analysis of Ancient Literature and Modern Clinical Application of the Classic Formula Huagai San [J]. Chinese Journal of Experimental Formulary*, 2024, 30 (05): 35-45. DOI: 10.13422/j.cnki.syjfx.20240366.
- [5] Yun Bao, Liu Li, Wu Qina, et al. *Explanation and significance of beriberi [J]. Journal of Liaoning University of Traditional Chinese Medicine*, 2015, 17 (01): 155-157.
- [6] Zhang Shihang, Liu Siyu, Luo Yan. *Exploring the Modern Dosage Corresponding to the Original Formula of Bu Zhong Yi Qi Tang Based on Medicinal Balance System [J]. Chinese Journal of Ethnic and Folk Medicine*, 2021, 30 (23): 16-18,44.
- [7] Li Gushuang. *Discussion on the Medicinal Balance System during the Song, Jin, and Yuan Dynasties [J]. Chinese Journal of Traditional Chinese Medicine*, 2008 (06): 478-480.