

Analysis on the Rule of Differentiation and Treatment of Spleen and Stomach Diseases in Yan Shi Ji Sheng Fang

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Abstract: Objective: To apply the traditional Chinese medicine inheritance assistance platform system (V2.5) to statistically analyze the prescriptions for the treatment of spleen and stomach diseases in Yan's Ji Sheng Fang by Yan Yonghe, and summarize the characteristics of Yan Yonghe's treatment of spleen and stomach diseases. Methods: Collect 69 prescriptions related to spleen and stomach diseases in Yan's Ji Sheng Fang, record them into the traditional Chinese medicine inheritance assistance platform system (V2.5) after standardized treatment, and analyze the regularity of their prescriptions. Results: A total of 69 prescriptions were collected, involving 99 traditional Chinese medicines. Among them, those with drug frequency ≥ 11 times were ginger, roasted licorice, atractylodes macrocephala, aconite, dried ginger, jujube, ginseng and pinellia ternata; 13 groups had drug combination frequency ≥ 9 times; The medicine is often used with pungent, bitter and sweet medicines; Spleen, stomach and lung meridians are the main meridians; Two core combinations and one new prescription were obtained. Conclusion: The basic principle of diseases of spleen and stomach system in Yan's Ji Sheng Fang is to strengthen spleen, warm yang and regulate qi.

1. Introduction

Yan Shi Ji Sheng Fang, written by Yan Yonghe in the Southern Song Dynasty, is a representative medical prescription book of the Song Dynasty. It not only contains the best prescriptions of the ancient sages and famous doctors, but also contains the proven effective prescriptions, such as Guipi Tang, Shipi San, and other good prescriptions for treating diseases of the spleen and stomach system. It has been highly praised by later generations of doctors and has been used for hundreds of years without failing [1]. Therefore, it is of certain significance to explore and study the prescriptions in Yan Shi Ji Sheng Fang for the treatment of diseases of the spleen and stomach system in order to summarize the rules and characteristics of drug use for diseases of the spleen and stomach system.

This paper selects 69 prescriptions in Yan Shi Ji Sheng Fang for the treatment of diseases of the spleen and stomach system. With the help of the traditional Chinese medicine inheritance assistance platform system (V2.5), it makes a statistical analysis of the drugs used in the prescriptions, providing

diagnostic and therapeutic ideas for clinical treatment of diseases of the spleen and stomach system.

2. Research data

2.1 Data source

The data of this study are all from 69 prescriptions in Yan Shi Ji Sheng Fang [2] for spleen and stomach diseases.

2.2 Inclusion criteria

With reference to the definition of diseases of the spleen and stomach system in Internal Medicine of Traditional Chinese Medicine [3] and diseases of the digestive system in Internal Medicine [4], select the diseases that meet the requirements in Yan's Ji Sheng Fang, such as the five internal organs (treatment of deficiency and excess of the spleen and stomach), the undigested food chapter, the distending chapter, the malaria chapter, the stool chapter, the cholera chapter, the vomiting stomach turning and choking diaphragm chapter, etc.

3. Research Methods

3.1 Data standardization

According to the Chinese Pharmacology [5] and the Pharmacopoeia of the People's Republic of China [6], the names of traditional Chinese medicines in the selected formula were standardized. For example, "Korean ginseng" was standardized as "ginseng", and "Red Poria cocos and White Poria cocos" were standardized as "Poria cocos".

3.2 Establishment of database

According to the inclusion criteria, a total of 69 prescriptions for diseases of the spleen and stomach system that meet the criteria were selected, involving 99 traditional Chinese medicines, which were recorded into the traditional Chinese medicine inheritance assistance platform system (V2.5) by specially assigned personnel, and relevant databases were established for multiple audits of data to ensure the accuracy and authenticity of the database.

3.3 Statistical analysis method.

By means of data mining, the frequency, four qi, five flavors, meridian tropism, prescription rules and new prescriptions of drugs in the established database were analyzed, and the commonly used drugs and their compatibility characteristics, new drug combinations and prescriptions in Yan Shi Ji Sheng Fang for the treatment of spleen and stomach diseases were obtained.

4. Research results

4.1 Statistics of medication frequency

It can be seen from Figure 1 that the first eight drugs used frequently in Yan Shi Ji Sheng Fang for the treatment of diseases of the spleen and stomach system are ginger, roasted licorice, atractylodes macrocephala, aconite, dried ginger, jujube, ginseng, pinellia ternata in turn. In addition, woody incense, magnolia officinalis and other drugs are also commonly used.

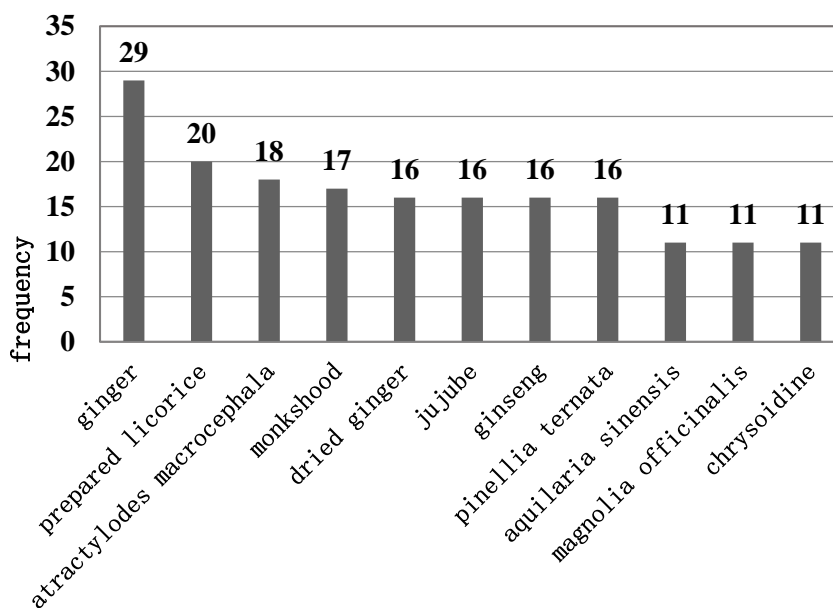


Figure 1: Drugs with single drug frequency ≥ 11 used in Yan Shi Ji Sheng Fang to treat diseases of spleen and stomach system

4.2 Distribution of four gases of drugs

It can be seen from the statistical results of the four gas distribution in Figure 2 that warm and hot drugs are used more than cold drugs.

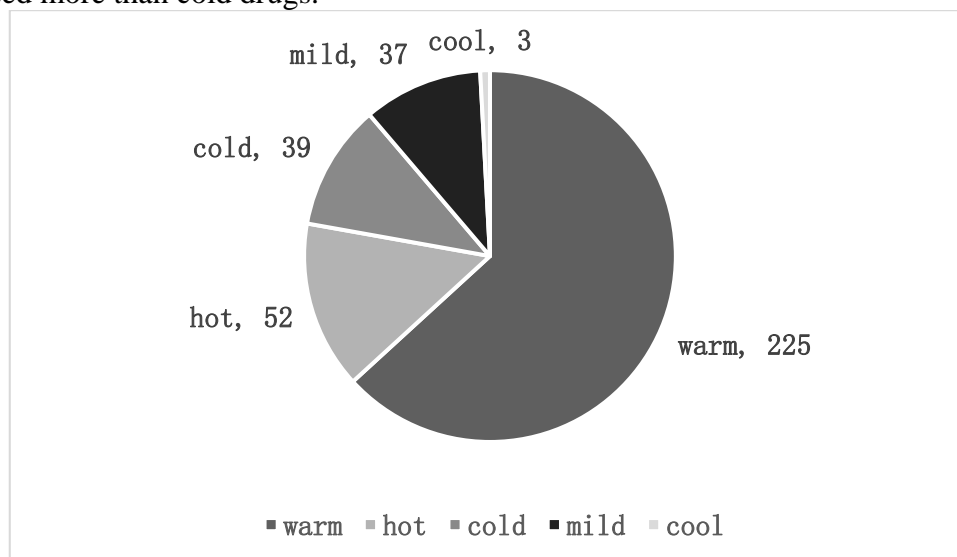


Figure 2: Four Qi Distribution of Yan Shi Ji Sheng Fang in Treating Diseases of Spleen and Stomach System

4.3 Distribution of five flavors

In Yan Shi Ji Sheng Fang, the drugs used to treat diseases of the spleen and stomach system are mainly pungent, bitter and sweet, while acid, salty and astringent drugs are rarely used, as shown in Figure 3.

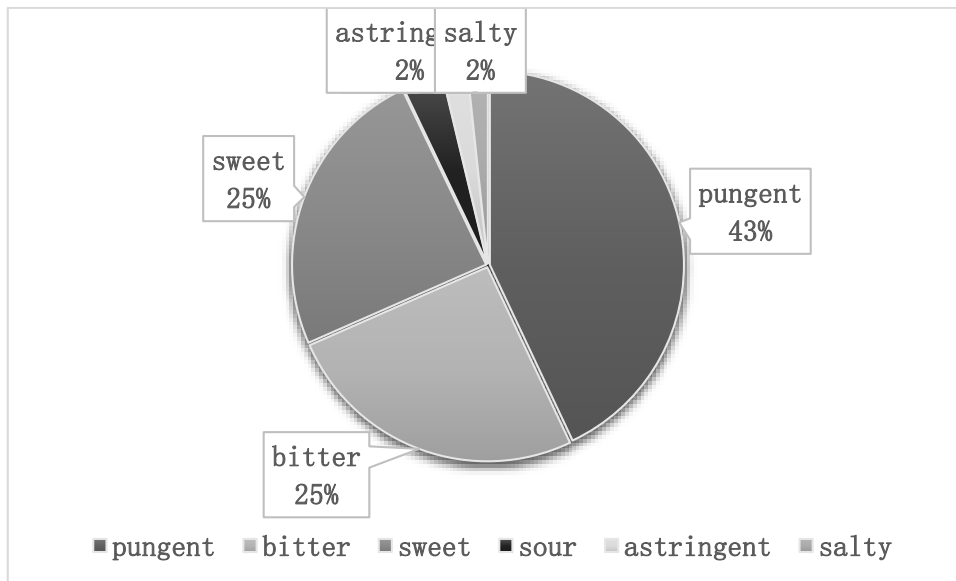


Figure 3: Distribution of five herbs in Yan Shi Ji Sheng Fang for treating diseases of spleen and stomach system

4.4 Meridian tropism and distribution of drugs

It can be seen from Figure 4 that the drugs used in Yan Shi Ji Sheng Fang to treat diseases of the spleen stomach system are mainly the spleen, stomach and lung meridians, supplemented by the kidney, heart and large intestine meridians.

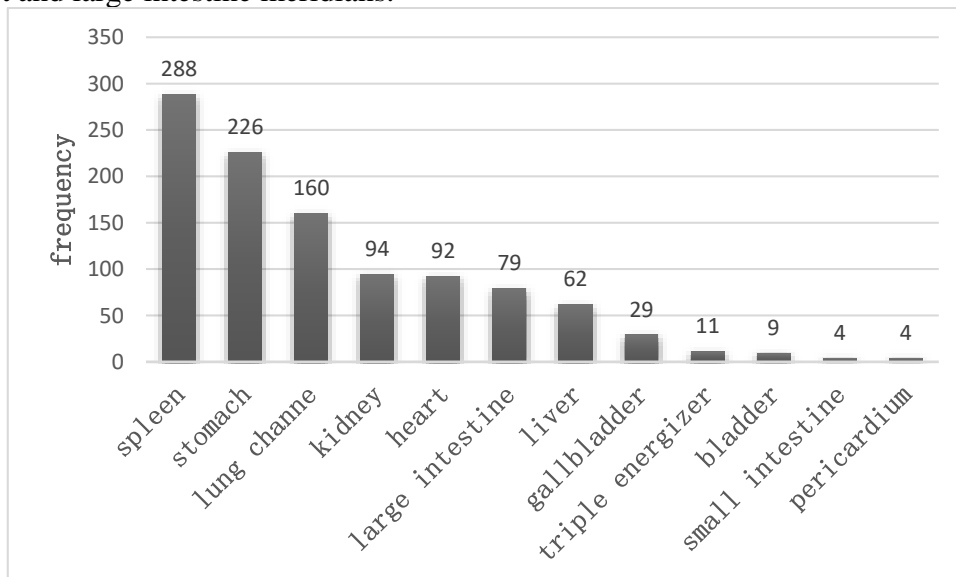


Figure 4: Channel tropism distribution of drugs in the treatment of diseases of the spleen and stomach system with Yan Shi Ji Sheng Fang

4.5 Statistics of drug combination rules

With the help of the "Prescription Rules" part of the traditional Chinese medicine inheritance assistance platform system (V2.5), set the "Number of Support" to 9, and the "Confidence" to 0.6. A total of 13 pairs of core combinations were obtained, including 9 traditional Chinese medicines. The drug combinations with a high frequency of occurrence were "roasted licorice – ginger", "ginger –

jujube", "ginger – atractylodes macrocephala", "ginger – ginseng", and " roasted licorice – ginseng", as shown in Table 1; The association rules of these drug combinations are shown in the network diagram, as shown in Figure 5.

Table 1: Drugs with single drug frequency ≥ 9 used in Yan Shi Ji Sheng Fang to treat diseases of spleen and stomach system

Serial No	Drug combination	Frequency	Serial No	Drug combination	Frequency
1	roasted licoric,ginger	16	8	ginger, pinellia ternata	9
2	ginger, jujube	16	9	ginger, monkshood	9
3	ginger, atractylodes macrocephala	12	10	roasted licoric, atractylodes macrocephala	9
4	ginger, ginseng	11	11	roasted licoric, jujube	9
5	roasted licoric, ginseng	10	12	ginger, magnolia officinalis	9
6	ginseng, atractylodes macrocephala	10	13	roasted licoric, ginger, jujube	9
7	macrocephala, dried ginger	10			

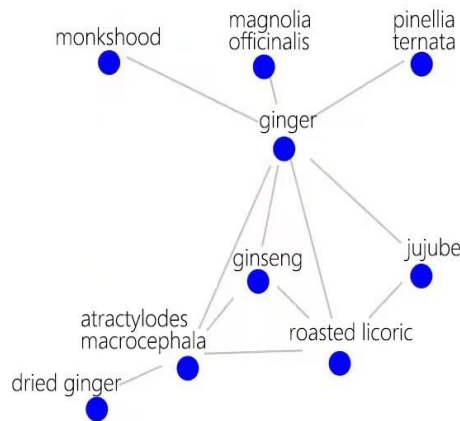


Figure 5: The network display of drug use association rules of Yan Shi Ji Sheng Fang for the treatment of diseases of the spleen and stomach system.

4.6 Cluster analysis

With the help of the "New Recipe Analysis" function module of the auxiliary platform system for traditional Chinese medicine inheritance (V2.5), set the "Relevance" to 5 and the "Punishment" to 3. Cluster analysis was carried out on the selected groups, and two core combinations were obtained: ginger – roasted licorice – ginseng, jujube – aconite – coptis chinensis; A new prescription was obtained by cluster analysis, which was made of roasted licorice, ginseng, ginger, jujube, aconite and coptis chinensis, as shown in Figure 6.

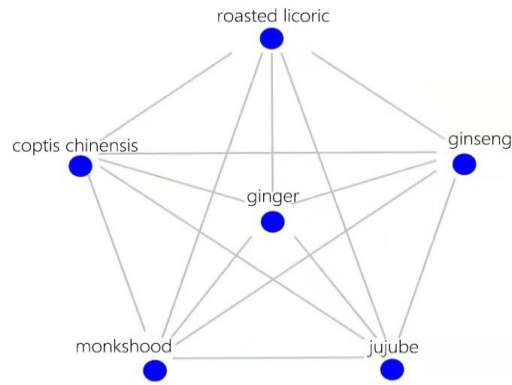


Figure 6: The network display of new prescription drugs obtained by clustering the treatment of spleen and stomach diseases with Yan Shi Ji Sheng Fang.

5. Discussion

Yan Shi Ji Sheng Fang points out that the Spleen Meridian of Foot Taiyin and the Stomach Meridian of Foot Yangming interact on the outside and inside, while the mildness on the outside and inside will help the water and grain to become ripe and refined, so as to irrigate the meridians. It is also pointed out that "deficiency of the spleen and stomach generates cold". At the same time, The Theory of Spleen and Stomach pointed out that "if the qi of the spleen and stomach is damaged, then the vitality cannot be filled. Therefore, it causes various diseases. It is believed that the spleen and stomach are the source of nourishing the vitality, and the damage of the spleen and stomach leads to the inability to nourish the vitality, which leads to various pathological changes. Many prescriptions in the Treatise on Febrile Diseases also use ginger, jujube, japonica rice, etc., and ask people to sip hot porridge, which also reflects the importance of the spleen and stomach. All the above indicate the importance of the spleen and stomach.

5.1 Drug frequency and high-frequency drug combination

According to the statistics of medication frequency in Figure 1, in Yan Shi Ji Sheng Fang, the prescriptions for diseases of spleen and stomach system are mainly used to warm yang, supplemented by invigorating qi. The commonly used drugs for warming yang (ginger, aconite, dried ginger, etc.), and commonly used drugs for invigorating qi (roasted licoric, atractylodes macrocephala, ginseng, jujube, etc.). The first eight drugs used are ginger, roasted licoric, atractylodes macrocephala, aconite, dried ginger, jujube, ginseng, and pinellia ternata. According to the statistics of drug combination rules, the drug combinations with high frequency include "roasted licorice – ginger", "ginger – jujube", "ginger – atractylodes macrocephala", "ginger – ginseng", "roasted licorice – ginseng", etc. Ginger and roasted licorice ranked first in terms of medication frequency. Ginger is pungent and warm, and belongs to the lung, spleen and stomach meridians. The medicinal properties of roasted licorice are sweet and warm, and they belong to the spleen, stomach, and lung meridians. The medicinal properties of ginseng are sweet, slightly bitter, and warm, and they belong to the spleen and lung meridians. Atractylodes macrocephala is bitter, sweet and warm in nature, and it can belong to the spleen and stomach meridian. Atractylodes macrocephala is also known as "the first essential medicine for invigorating the spleen and invigorating the spleen "by physicians of all ages [7]. The combination of roasted licorice and ginger has the effect of strengthening spleen and warming yang; The compatibility of ginger and jujube can warm the middle and strengthen the spleen; Ginger and Atractylodes macrocephala can strengthen spleen and warm yang; Ginger and ginseng are used

together to warm yang and replenish qi; The combination of roasted licorice and ginseng can replenish both the middle and qi, and achieve the effect of replenishing the middle and qi. It can be seen from the use of the above five pairs of drugs in combination that Yan Yonghe paid attention to warming Yang and benefiting Qi when he was treating diseases of the spleen and stomach system.

5.2 Four properties of medicine

It can be seen from the statistical results of the four properties distribution in Figure 2 that warm and hot drugs are used more than cold drugs. Yan Yonghe pointed out that "the kidney yang is weakened, the spleen cannot be steamed up, and the middle-jiao can not transport the essence of water valley. It is better to nourish the kidney than the spleen. If the kidney qi is full and the spleen is warm, the middle-jiao will return to normal [2]. Yan yonghe emphasizes the role of "true fire" in the kidney, that is, kidney yang, the fire of life gate. Therefore, Yan's medication focuses on warm drugs.

5.3 Five flavors of medicine

It can be seen from the statistical results of the distribution of five flavors in Figure 3 that pungent, bitter and sweet drugs are widely used, while acid, salty and astringent drugs are rarely used. Pungent medicine has the effect of dispersing. Bitter medicine has the effect of drying dampness. Sweet medicine has soothing and tonifying effects. The application of pungent medicine in spleen and stomach disease mainly includes: pungent fragrance can dissolve dampness, regulate qi and harmonize the middle-jiao, Pungent medicine can relieve pain, warm and replenish middle energizer, and dispel cold; Bitter medicine is also widely used in spleen and stomach diseases. Yan yonghe emphasized "the importance of Qi", and at the same time, it was compatible with sweet drugs to warm and nourish Yang Qi while regulating Qi.

5.4 Drug meridian attribution

In Figure 4, the first four meridian tropism organs of drugs are spleen, stomach, lung and kidney. The spleen and stomach can not receive, transport and transform the essence of water and grain without the coordination of the lungs. The spleen and stomach are the foundation of acquired life, the source of qi and blood biochemistry, and the refined substances required by the lungs depend on the spleen's delivery. Use ginger, roasted licorice and ginseng more, and emphasize the importance of tonifying the spleen and stomach and benefiting qi. The kidney is the foundation of nature and the root of life; The spleen and stomach are the foundation of acquired life and the source of qi and blood biochemistry. The absorption, grinding, transportation and transformation of the spleen and stomach depend on the warmth of the kidney yang, and the essence and qi in the kidney need to be nourished by the essence of the spleen and stomach. The importance of warming the kidney yang in the treatment of spleen and stomach diseases was emphasized by using more monkshood, dried ginger and other drugs. It can be seen that Yan is good at regulating qi and warming kidney yang in the treatment of diseases of the spleen and stomach system, which provides an important idea for our clinical diagnosis and treatment of diseases of the spleen and stomach system.

5.5 Analysis of new prescriptions based on entropy clustering

The new prescription is composed of roasted licorice, ginger, jujube, ginseng, aconite and coptis chinensis. In the formula, roasted licorice is used to replenish the middle-jiao, and ginger is used to warm the middle-jiao; Ginger and jujube can strengthen spleen and stomach; Ginseng invigorates qi and spleen, replenishes qi and helps transport; Monkshood warms and replenishes kidney yang, and

kidney yang warms and transports spleen yang. *Coptis chinensis* is bitter and cold in nature. When it is mixed with pungent and warm herbs, it can not only improve the qi, but also prevent the pungent and warm herbs from being too warm and dry. The new prescription focuses on strengthening spleen, warming yang and regulating qi.

6. Conclusion

Yan Yonghe can see that the basic principle of his treatment is to strengthen the spleen, warm yang and regulate qi when he uses drugs to treat diseases of the spleen and stomach system. If the spleen and stomach are healthy, the qi source will be sufficient. If the kidney yang is strong, the spleen yang can be warmed, so that the qi can flow smoothly and the human body can be peaceful.

Acknowledgement

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