

Analysis of TCM Cough Syndrome Differentiation and Treatment Combined with Porridge Prescription from Lao Lao Heng Yan Auxiliary Treatment Cough

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Abstract: *It is based on the dialectical treatment of traditional Chinese medicine to explore the mechanism and clinical application ideas of Part of porridge prescription from Lao Lao Heng yan to assist in the treatment of cough. Lao Lao Hengyan's porridge prescription has a total of 100 prescriptions, divided into three categories. Selecting part of the porridge prescription from the cough treatment, clinical manifestations, etiology and pathogenesis and prescription drugs, Combined with "eight methods to treat cough", Zang-fu five elements relationship, Based on TCM syndrome differentiation and treatment, to probe into the TCM theoretical basis and clinical application of congee prescription in the treatment of cough.*

Keywords: Lao Lao Heng Yan, Porridge prescription, Cough, Health.

1. Introduction

Cough is both a symptom of lung-related diseases and an independent condition, characterized primarily by the act of coughing, often accompanied by expectoration. In modern medicine, acute and chronic bronchitis, as well as cough-variant asthma, fall within the scope of this condition [1]. Studies have shown that the prevalence of cough among individuals aged 40 and above in China is 12.2%, with a persistent cough incidence rate of 5.3% [2].

Zhang Jiebin classified cough based on etiology into external and internal causes. External causes are triggered by factors such as wind, cold, summer heat, dampness, dryness, and fire, while internal causes are attributed to disorders of the lung itself and imbalances in the ascending and descending movements of Qi in the internal organs. As stated in the "Su Wen · Ke Lun" (Basic Questions · Treatise on Cough), "All the five Zang and six Fu organs can cause cough, not just the lung." The "Su Wen · Ke Lun" also describes cough symptoms related to the five Zang and six Fu organs. Treatment methods for cough, based on its duration and the nature of deficiency or excess, include clearing, dispersing, descending, moistening, purging, warming, tonifying, and astringing, applied according to syndrome differentiation.

From the perspective of the Five Elements' mutual generation and restriction among the organs, treatment methods include the Metal-Water mutual generation approach, which involves treating both the lung and kidney, as seen in the Jin Shui Liu Jun Jian (Metal-Water Six Gentlemen Decoction). The principle of "nourishing the mother organ when deficient" is applied to strengthen the spleen to nourish lung fluids, known as the "cultivating earth to generate metal" method. This is exemplified in the "Su Wen · Jing Mai Bie Lun" (Basic Questions · Discussion on the Separate Channels), which states, "The spleen distributes essence upwards to the lung, regulating the water passages." A practical application of this method is the combination of Si Jun Zi Tang (Four Gentlemen Decoction) with Sheng Mai San (Pulse-Generating Powder).

In cases of mutual restriction, such as when liver fire transversely invades the lung (wood fire punishing metal), treatment focuses on addressing the liver's excessive fire. Additionally, since the lung and large intestine are exteriorly-interiorly related, if lung Qi fails to disperse, leading to obstruction of bowel Qi, Xuan Bai Cheng Qi Tang (White-Dispersing and Qi-Subduing Decoction) can be used to disperse lung Qi and regulate bowel Qi.

2. Analysis of Medicinal Ingredients Corresponding to the Lung Meridian

The porridge recipes in Lao Lao Heng Yan are characterized by their simplicity, often consisting of one or two medicinal ingredients. According to a study, the frequency of ingredients corresponding to the Lung/Large Intestine meridians in all the porridge recipes of Lao Lao Heng Yan is 208 times, second only to the Spleen/Stomach meridians, which appear 334 times, accounting for 26.5% [3]. The author selected the main medicinal ingredients (based on the names of the porridge recipes) for meridian classification statistics and found that among 100 porridge recipes, 44 contain ingredients corresponding to the Lung Meridian. These are as follows:

21 Superior Recipes: Coix Seed Porridge (Yi Yi Ren Zhou), Royal Rice Porridge (Yu Mi Zhou), Ginger Porridge (Jiang Zhou), Luffa Leaf Porridge (Si Gua Ye Zhou), Walnut Porridge (Hu Tao Zhou), Almond Porridge (Xing Ren Zhou), Pine Nut Porridge (Song Ren Zhou), Chrysanthemum Sprout Porridge (Ju Miao Zhou), Chrysanthemum Porridge (Ju Hua Zhou), Plum Blossom Porridge (Mei Hua Zhou), Buddha's Hand Porridge (Fo Shou Gan Zhou), Lily Bulb Porridge (Bai He Zhou), Acanthopanax Sprout Porridge (Wu Jia Ya Zhou, also known as Ci Wu Jia), Loquat Leaf Porridge (Pi Pa Ye Zhou), Tea Porridge (Ming Zhou), Perilla Leaf Porridge (Su Ye Zhou), Perilla Seed Porridge (Su Zi Zhou), Patchouli Porridge (Huo Xiang Zhou), Mint Porridge (Bo He Zhou), Cypress Leaf Porridge (Bai Ye Zhou), Bird's Nest Porridge

(Yan Wo Zhou).

10 Middle-grade Recipes: Chinese Yam Porridge (Shan Yao Zhou), Trichosanthes Root Porridge (Tian Hua Fen Zhou), Fermented Soybean Porridge (Fu Jiang Zhou), Sugarcane Juice Porridge (Zhe Jiang Zhou), Dried Persimmon Porridge (Shi Bing Zhou), Fritillaria Bulb Porridge (Bei Mu Zhou), Bamboo Sap Porridge (Zhu Li Zhou), Cow's Milk Porridge (Niu Ru Zhou), Duck Broth Porridge (Ya Zhi Zhou), Dried White Fish Porridge (Bai Xiang Zhou).

13 Lower-grade Recipes: Plantain Seed Porridge (Che Qian Zi Zhou), Burdock Root Porridge (Niu Bang Gen Zhou), Mulberry Root Bark Porridge (Sang Bai Pi Zhou), Ophiopogon Root Porridge (Mai Men Dong Zhou), Dichroa Root Porridge (Chang Shan Zhou), White Quartz Porridge (Bai Shi Ying Zhou), Purple Quartz Porridge (Zi Shi Ying Zhou), Talcum Porridge (Hua Shi Zhou), White Halloysite Porridge (Bai Shi Zhi Zhou), Scallion White Porridge (Cong Bai Zhou), Radish Porridge (Lai Fu Zhou), Radish Seed Porridge (Lai Fu Zi Zhou), Beetroot Porridge (Tian Cai Zhou).

The order above is consistent with the sequence in which the recipes appear in the porridge compendium. The 44 medicinal ingredients are further analyzed according to their classification in Traditional Chinese Materia Medica, as detailed in Table 1.

Table 1: "Lao Lao Heng Yan." Each category lists the number of drugs, specific examples, and their proportion in the total count.

No.	Category	Quantity (types)	Drugs	Proportion
1	Tonifying	13	Walnut, Lily, Acanthopanax, Bird's Nest, Yam, Soy Milk, Cow's Milk, Duck Juice, White Eel, Ophiopogon, White Quartz, Purple Quartz, Beet	0.30
2	Relieving Cough and Asthma	6	Almond, Loquat Leaf, Perilla Seed, Fritillaria, Bamboo Sap, Mulberry Root Bark	0.14
3	Exterior-relieving	5	Ginger, Perilla Leaf, Mint, Burdock Root, Green Onion	0.11
4	Clearing Heat	5	Luffa Leaf, Chrysanthemum, Chrysanthemum Sprout, Trichosanthes Root, Sugarcane Juice	0.11
5	Dampness-draining	3	Coix Seed, Plantain Seed, Talcum	0.07
6	Astringing	3	Poppy Seed, Persimmon, White Halloysite	0.07
7	Digesting	2	Radish Seed, Radish	0.05
8	Qi-regulating	2	Plum Blossom, Buddha's Hand	0.05
9	Purging	1	Pine Nut	0.02
10	Blood-activating and Stasis-resolving	1	Catechu	0.02
11	Dampness-resolving	1	Patchouli	0.02
12	Hemostasis	1	Biota	0.02
13	Emetic	1	Dichroa Root	0.02
	Total	44		

The results indicate that, according to the classification of drugs in "Traditional Chinese Pharmacology," the 44 ingredients in the porridge recipes of "Lao Lao Heng Yan" that correspond to the lung meridian fall into 13 categories.

Among these, 13 tonifying drugs account for 30% of the total. Scholars have identified the top ten high-frequency drugs used in general prescriptions for treating coughs: ginger, licorice, pinellia, almond, tangerine peel, fritillaria, ginseng, honey, coltsfoot, and mulberry root bark [4]. Of these, six appear in the porridge recipes of "Lao Lao Heng Yan." Based on the primary efficacy classification of drugs in "Traditional Chinese Pharmacology" and their corresponding meridians, these 44 porridge recipes provide a basis for the auxiliary treatment of lung-related diseases in "Lao Lao Heng Yan."

3. Analysis of the Five Elements' Mutual Generation

3.1 Nourishing the Spleen to Benefit the Lungs: Strengthening the Spleen to Nourish Lung Fluids

According to the principle of the Five Elements' mutual generation, when an organ is deficient, its "mother organ" should be nourished to restore its physiological function through the generating cycle. The spleen is considered the mother organ of the lungs. If the spleen fails to transport and transform nutrients, it can lead to the internal production of phlegm and dampness, resulting in the pathological mechanism of "spleen failing to distribute essence," which affects the lungs' functions of dispersion and descent. Similarly, if lung-related diseases persist and are difficult to cure, strengthening the spleen should be considered. Gao Jie conducted a frequency analysis of the porridge recipes in "Lao Lao Heng Yan," focusing on the functions of "tonifying the spleen, strengthening the spleen, warming the spleen, and tonifying the spleen and stomach," and found a total of 118 instances. The author analyzed the porridge recipes based on the primary efficacy of the main ingredients as classified in "Traditional Chinese Pharmacology" [5]. The details are shown in Table 2.

Table 2: Classification of Spleen-Strengthening Porridge Recipes in "Lao Lao Heng Yan"

No.	Type	Quantity (recipes)	Porridge Recipes
1	Qi-tonifying	6	Yam Porridge, Hyacinth Bean Porridge, Acanthopanax Shoot Porridge, Jujube Porridge, Water Chestnut Porridge, Beet Porridge
2	Dampness-draining	3	Coix Seed Porridge, Poria Porridge, Red Bean Porridge
3	Astringing	3	Lotus Seed Porridge, Wheat Porridge, Euryale Seed Porridge
4	Warming	1	Evodia Porridge

The results show that the spleen-strengthening porridge recipes in "Lao Lao Heng Yan" are divided into four categories: Qi-tonifying, dampness-draining, astringing, and warming, totaling 13 recipes. Among these, Qi-tonifying recipes are the most numerous, with six recipes. In summary, applying the theory of "nourishing the mother organ when deficient" from the Five Elements to harmonize the lungs and spleen is a feasible approach for assisting in the treatment of cough and asthma due to lung-spleen Qi deficiency.

3.2 Metal-Water Mutual Generation: Treating Phlegm Due to Kidney Deficiency

The Jin Shui Liu Jun Jian (Metal-Water Six Gentlemen

Decoction) is one of the 100 formulas included in the "First Batch of Ancient Classical Formulas" released by the National Administration of Traditional Chinese Medicine in 2018 [6]. It is primarily used to treat phlegm due to kidney deficiency, with symptoms such as coughing, nausea, excessive phlegm, and phlegm with a salty taste. The formula consists of Chinese angelica (Danggui), prepared rehmannia (Shudihuang), pinellia (Banxia), poria (Fuling), tangerine peel (Chenpi), and honey-fried licorice (Zhigancao). The formula uses prepared rehmannia to nourish kidney water, embodying the principle of metal-water mutual generation. Chinese angelica is used to relieve cough and asthma, addressing rebellious Qi, similar to its use in Su Zi Jiang Qi Tang (Perilla Fruit Qi-Descending Decoction).

The "Jingyue Quanshu" (Complete Works of Zhang Jingyue), Volume 11, states: "If external wind-cold causes coughing with excessive phlegm, asthma, and deficiency of Yin and blood, leading to insufficient phlegm transformation and Qi, the body cannot expel the pathogenic factors effectively. In such cases, Jin Shui Liu Jun Jian is miraculously effective [7]." The "Cheng Fang Qie Yong" (Practical Use of Established Formulas), states: "For lung and kidney deficiency with cold, water transforming into phlegm, or elderly patients with Yin deficiency and insufficient blood and Qi, who suffer from external wind-cold, coughing, nausea, and excessive phlegm, this is a divine and effective formula, a variation of Liu Jun Zi Tang (Six Gentlemen Decoction) [8]."

Based on the above, this condition can be treated with ginger porridge taken warm to disperse external cold, following the principle of "drinking hot porridge" as in Gui Zhi Tang (Cinnamon Twig Decoction). Once the external pathogenic factors are resolved, Rehmannia porridge can be used to replenish kidney Yin.

4. Classification of Porridge Recipes into Upper, Middle, and Lower Grades

The porridge recipes in "Lao Lao Heng Yan" are divided into three grades: upper, middle, and lower. There are 36 upper-grade recipes, 27 middle-grade recipes, and 37 lower-grade recipes, totaling 100 recipes. The original author classified them into these three grades but did not provide the reasoning behind this classification. The author of this analysis compared the upper, middle, and lower-grade drugs listed in the "Shen Nong Ben Cao Jing" (Divine Farmer's Materia Medica) with the drugs appearing in the porridge recipes of "Lao Lao Heng Yan" to identify potential patterns. The preliminary conclusion is that some drugs align with the classification in the "Ben Cao Jing," such as Euryale Seed Porridge, Coix Seed Porridge, Sesame Porridge, Plum Kernel Porridge, and Fritillaria Porridge in the upper-grade recipes. However, there are discrepancies, such as Jujube, which is classified as an upper-grade drug in the "Ben Cao Jing," appearing in the middle-grade recipes, while White Quartz and Purple Quartz, classified as upper-grade in the "Ben Cao Jing," appear in the lower-grade recipes. Other inconsistencies include Plantain Seed, Sour Jujube Seed, Lily, Evodia, and Elm Bark.

The author also conducted a preliminary analysis of the properties, flavors, and meridian affiliations of the main drugs

in the porridge recipes (based on the recipe names) and calculated the frequency of meridian affiliations for the upper, middle, and lower-grade drugs in "Lao Lao Heng Yan," as shown in Tables 3, 4, and 5, respectively. The general pattern is that the meridian affiliations of the drugs in the porridge recipes are primarily concentrated in the five Zang organs (heart, liver, spleen, lung, and kidney), with some involvement of the large intestine, small intestine, and bladder meridians. Specifically, the stomach meridian appears 41 times, the spleen meridian 35 times, the lung meridian 44 times, the liver meridian 25 times, the kidney meridian 38 times, and the heart meridian 20 times.

Table 3: Frequency of Meridian Affiliations in Upper-Grade Porridge Recipes

No.	Meridian	Frequency	Proportion
1	Spleen	15	0.17
2	Stomach	16	0.18
3	Lung	21	0.24
4	Liver	12	0.14
5	Kidney	14	0.16
6	Large Intestine	6	0.07
7	Heart	4	0.05
	Total	88	

Table 4: Frequency of Meridian Affiliations in Middle-Grade Porridge Recipes

No.	Meridian	Frequency	Proportion
1	Spleen	11	0.19
2	Stomach	13	0.23
3	Lung	10	0.18
4	Liver	3	0.05
5	Kidney	8	0.14
6	Large Intestine	3	0.05
7	Heart	9	0.16
	Total	57	

Table 5: Frequency of Meridian Affiliations in Lower-Grade Porridge Recipes

No.	Meridian	Frequency	Proportion
1	Spleen	9	0.12
2	Stomach	12	0.16
3	Lung	13	0.17
4	Liver	10	0.13
5	Kidney	16	0.21
6	Large Intestine	7	0.09
7	Heart	7	0.09
8	Small Intestine	2	0.03
9	Gallbladder	1	0.01
	Total	77	

The results show that the lung meridian has the highest frequency in the upper-grade recipes at 24%, the stomach meridian has the highest frequency in the middle-grade recipes at 23%, followed by the spleen meridian at 19%, and the kidney meridian has the highest frequency in the lower-grade recipes at 21%. In conclusion, the author suggests that the classification of porridge recipes into upper, middle, and lower grades in "Lao Lao Heng Yan" may be related to the three burners (San Jiao) based on the analysis of meridian affiliations.

5. Summary

Under the premise of TCM syndrome differentiation, the porridge recipes in "Lao Lao Heng Yan" are feasible for assisting in the treatment of cough. However, to establish a systematic application of dietary therapy for common internal diseases and to clarify the correspondence between dietary

therapy and TCM syndrome patterns, further in-depth research into ancient dietary therapy literature is necessary.

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