

Research Progress of Yupingfeng Powder in Clinical Application

Qing Guo Li Sun*

College of Traditional Chinese Medicine, Jinan University, Guangzhou, Guangdong, 510632, China

ARTICLE INFO

Article history

Received: 28 May 2020

Revised: 8 June 2020

Accepted: 24 July 2020

Published Online: 31 July 2020

Keywords:

Yupingfeng Powder

Clinical application

Pharmacological action

ABSTRACT

Yupingfeng Powder is widely used in the treatment of respiratory, digestive, urinary, dermatological and ENT diseases. The author reviewed the animal pharmacology experiments and clinical cases in recent years, and summarized and analyzed the diseases he treated, providing ideas and methods for clinical users.

1. Introduction

Yupingfeng, is a well-known Chinese medicine prescription, was put forward by Wei Yilin, a doctor of the Yuan Dynasty (1277-1347AD), in the book "The World Health Efficacy". The prescription includes 30g of *Astragalus*, 60g of *Atractylodes Rhizome* (Fried) and 60g of *Atractylodes macrocephala Koidz.* In the Qing Dynasty (1662-1735AD), the typhoid scientist Ke Yunbo said: *Astragalus* is good at driving wind, *Atractylodes Rhizome* is good at solidifying the surface, so it can prevent external evils, *Atractylodes* is good at solidifying, so it can be solid inside. "If you are good at driving away the wind with wind prevention, you can get astragalus root to fix the surface, then there is a guard outside, and if you get *Atractylodes* root to fix the inside, then there is evidence inside. Wind evil goes away and never comes again.

Those who want to disperse wind evil should lean like a screen and be as precious as jade. ("夫以防风之善驱风，得黄芪以固表，则外有所卫，得白术以固里，则内有所据。风邪去而不复来，此欲散风邪者，当倚如屏，珍如玉也。故名玉屏风"). Decoctions were subsequently modified into granules. This article mainly summarized the pharmacological effects of Yupingfeng Powder and its application in clinical departments. Regularity provides a basis for clinical application.

2. Pharmacological Action

Modern clinical pharmacology studies have shown that Yupingfeng Powder has the functions of enhancing immune function, promoting immune cell activation and anti-inflammatory and anti-aging effects. Chen Xiangtao^[1] used Yupingfeng polysaccharide to evaluate the effects on

*Corresponding Author:

Li Sun,

Male, professor; master tutor;

E-mail: 23064614@qq.com.

About the other author:

Qing Guo,

Female, master student, mainly engaged in research on the prevention and treatment of influenza by Chinese medicine.

Fund Project: Granted by the Guangdong Provincial Bureau of Traditional Chinese Medicine (No.: 20131155).

the immune function of cyclophosphamide-induced immunocompromised mice. At the same time, the spleen lymphocytes of mice with delayed immune allergic reaction were used as target cells, and the effects were observed. The results showed that the polysaccharides of Yupingfeng had different effects on non-specific immunity, humoral immunity and cellular immune function caused by cyclophosphamide (COX). Wu Xuefang applied the traditional Chinese medicine serum pharmacological method^[2] to observe the effect of Yupingfeng Powder on the activation of mouse peritoneal macrophages. The results showed that the Yupingfeng Powder serum could activate mouse macrophages after 30 min~90min treatment, which indicated that some components in Yupingfeng can be absorbed activate immune cells at a faster rate. Bao Yingcun et al^[3] found that after Yupingfeng Powder's drug-containing serum acted on spleen lymphocytes of aged mice, decreased senescent cells, increased total superoxide dismutase (T-SOD) activity, reduced malondialdehyde (MDA) and cellular active oxygen (ROS) content. SOD is an antioxidant enzyme that protects cells from oxygen free radical damage. MDA content can reflect the degree of lipid peroxidation. Both are important indicators of antioxidant damage. The results showed that Yupingfeng Powder can inhibit cell senescence by increasing T-SOD, decreasing MDA activity and intracellular ROS levels in spleen lymphocytes of aged mice. Yan Hongwei et al^[4] reported the histological changes of ovary and testis in Jiayufengping aging mice, and discussed them from the perspective of anti-inflammatory and anti-aging. In addition, astragaloside, atractylodone and cimicin, the main active components of Yupingfeng powder, have been proved to have the functions of anticancer, promoting the apoptosis of inflammatory cytokines and enhancing the immune mechanism^[5-8]. This provides a basis for the wide use of Yupingfeng Powder in clinical practice.

3. Clinical Application

Based on the pharmacological effects of Yupingfeng Powder on anti-inflammatory, immune enhancement and anti-cancer, Yupingfeng powder is widely used in respiratory, digestive, urinary, blood and other system diseases.

3.1 Respiratory System

Yupingfeng Powder is widely used in respiratory diseases and is commonly used in acute upper respiratory tract infections, allergic rhinitis, chronic obstructive pulmonary disease, and variant asthma. Acute upper respiratory tract infection belongs to the category of traditional medical exogenous diseases. Yupingfeng Powder can supplement

the lungs, regulate the righteousness, and help the evil out, so it is better in treating respiratory diseases. Wang Yusheng et al^[9] observed the effect of Yupingfeng Powder on improving the efficacy of qi-deficiency cold patients through clinical experiments; Niuyang^[10] professor used Yupingfeng powder plus pueraria and gypsum as the basic prescription in clinical practice, under the guidance of dialectical theory of lung spleen deficiency to treat allergic rhinitis. The mechanism may be related to lung-spleen deficiency, lung heat, and spleen and stomach imbalance. Yan Youcang et al^[11] have shown that Yupingfeng Powder can effectively treat chronic obstructive pulmonary disease. 128 patients with chronic obstructive pulmonary disease remission were randomly divided into observation group (64 cases) and control group (64 cases). The control group was treated with conventional western medicine inhalation therapy, and in the observation group, based on conventional western medicine, patients were treated with Guizhi Thickening Puxingzi Decoction and Yupingfeng Powder. Both groups were treated for 1 month, and the changes in pulmonary function indexes of the two groups were observed. The functional indicators changed, and after treatment, the Yupingfeng group achieved significant curative effect in treating diseases. Cough Variant Asthma (CVA) can develop into typical asthma if not treated in time^[12-13]. Traditional Chinese medicine classifies CVA as "cough, asthma" and other areas. The pathogenesis is complicated, and there are many certificates of virtual standard, false and real. Li Hua Li^[14] selected 88 children with CVA and randomly divided them into treatment group and control group with 44 cases in each group. The control group was treated with montelukast sodium chewable tablets, and the treatment group was treated with Yupingfeng powder and acupoint sticking. Observe the clinical effect of the two groups. It turns out that the therapeutic effect of Yupingfeng powder combined with Acupoint Application on CVA in children total effective rate is 93.18%, control group is 84.09%. Compared with the montelukast sodium chewable tablets by Yupingfeng Powder combined with acupoint sticking, the results showed that the effects of Yupingfeng were better than the control group.

3.2 Digestive System

Yupingfeng Powder can supplement the function of lungs and spleen, so the application of the digestive system is also very effective. Li Xuemei^[15] and others successfully treated diarrhea with Yupingfeng Powder. 102 patients with spleen and stomach diarrhea admitted to our hospital were divided into study group and control group, 51 cases in each group. The control group was treated with mont-

morillonite powder + trimebutine maleate tablets. The research group was treated with Yupingfeng Powder and Xiangsha Liujunzi Decoction. The results showed that the total effective rate of the study group was higher than that of the control group; the time of recurrence of stool and the time of recurrence of stool were shorter in the study group than in the control group; the level of inflammatory factors in the study group was lower than that in the control group. The advantages of Yupingfeng Powder scattered Xiangsha Liujunzi Decoction in treating spleen and stomach diarrhea are more obvious, which can shorten the recovery time of stool and reduce the severity of inflammation, thus further improving the quality of life. Ulcerative colitis “Traditional Chinese Medicine Treatment Program” belongs to the category of “Jiuyu”^[16]. Professor Ye Bai^[17] treated 1 ulcerative colitis in the remission period based on the principle of strengthening the body, using Yupingfeng Powder as the main prescription to achieve the goal of maintaining remission and reducing the recurrence rate.

3.3 Urinary System

Nephrotic syndrome edema is closely related to lung, spleen and kidney. Yupingfeng Powder can be used to treat nephrotic syndrome. Du Ruige^[18] selected 60 patients in hospital and randomly divided into 30 groups in each group. The two groups were treated with hormones. The experimental group was treated with Yupingfeng Powder and Zhibai Dihuang Decoction. The renal function of the two groups was observed. Indicators, TCM symptom scores and adverse reaction rates. The conclusion is: After treatment, the 24h urine protein quantitation, BUN, Scr, TCM syndrome scores and adverse reaction rates were lower than those before treatment, and the experimental group was lower than the control group. Conclusion: Yupingfeng Powder group is effective in treating adult nephrotic syndrome and can improve renal function.

3.4 Gynecological Diseases

According to the common pathogenesis of imaginary deficiency, trauma and evil, and the treatment principle of “different disease treatment”, Yupingfeng Powder and its compound preparations have achieved satisfactory results in the prevention and treatment of various diseases in gynecology. The results of modern pharmacological experimental studies showed that Yupingfeng Powder can enhance the phagocytic index of macrophages, increase the proliferation of T lymphocytes, and regulate cellular immune function^[19]. Professor Wei Shaobin^[20] used “salt liver and spleen, help righteousness” as the treatment of

patients with postoperative surgery, with Sini Sijun Yupingfeng plus blood circulation and phlegm, combined with rectal administration, ear acupuncture, acupoint application, etc. The characteristic therapy of traditional Chinese medicine, combined with internal and external, has achieved satisfactory results in postoperative menstruation, assisted pregnancy, pain relief and anti-recovery. In addition, Wei Shaobin used TCM comprehensive prevention and treatment program to treat patients with recurrent pelvic inflammatory disease remission, the prevention group was treated mainly by Yupingfeng Powder, and the control group was mainly based on health education. After 8 weeks of treatment, the comprehensive prevention group total effective rate was 97.14 % and control group total effective rate was 59.18%, the effect treatment group was better than control group. Professor Wang Qi^[21] believes that kidney yang deficiency type ovulation disorder, if lost treatment and mistreatment, Jinshui Xiangsheng, son stealing maternal qi, causing lung and kidney deficiency, lung qi deficiency is not outside the yang qi venting kidney is also very. The main body was given the addition and subtraction of “two immortal soup and Yupingfeng powder”. After three cycles of treatment, the incidence of side effects such as follicular diameter, intima thickness, and spontaneous ovarian hyperstimulation syndrome (OHSS) decreased. Xie Sizhen^[22] used Jiawei Yupingfeng Powder to treat 62 cases of qi deficiency type postpartum sweating, 62 cases of oral administration of oryzanol plus Vitamin B1, 5 days for 1 course of treatment, 2 courses of treatment after Yupingfeng group recovery rate and total The efficiency (50%, 95.17%) was significantly higher than the control group (22.58%, 38.71%).

3.5 Blood System

Yupingfeng Powder is also widely used in the treatment of allergic purpura. Allergic purpura (HSP) is an allergic disease involving multiple organ tissues caused by pathological changes of microangiitis^[23]. Chinese medicine believes that the incidence of HSP mainly lies in the child's body of juvenile yin and yin and yang, lack of qi and blood, The condition is easy to turn into a deficiency, and the deficiency of the lung and spleen is caused by the infirmity of the health, In addition, the heat is suddenly conducted into the blood, forming purpura. Therefore, the treatment should be based on the principle of benefiting the qi and strengthening the body^[24]. Bian Hongen^[25] and others observed the clinical effects of Yupingfeng Powder combined with Western medicine in the treatment of children with allergic purpura (HSP). 98 children with HSP who met the inclusion criteria were randomly divided into 2 groups and 49 cases according to the random number table

method. The group was treated with conventional western medicine, and the research group was treated with Yupingfeng Powder on the basis of the treatment plan of the control group. Results after 1 month of treatment: 95.92% of the total effective rate of clinical efficacy, 79.59% higher than the control group. Conclusion: Yupingfeng Powder combined with Western medicine treatment of children with HSP can alleviate clinical symptoms, inhibit inflammatory response, improve complement level and cellular immune function, and improve therapeutic effect.

3.6 Skin Disease

Yuping Feng Powder's function of external defense and evil spirits makes it show unique advantages in the treatment of skin diseases. Sun Xiaochen^[26] used western medicine and western medicine plus Yupingfeng scattered for the treatment of allergic dermatitis. The result was better than that of the western medicine group, which highlighted the effect of Yupingfeng Powder. Kong Danyi^[28] randomly divided 128 patients with urticaria into Jiawei Yupingfeng Powder treatment group (64 cases) and levocetirizine hydrochloride tablets control group (64 cases) for 4 weeks, After 4 weeks of treatment, the results showed that the effective rate in the treatment group was 98.43%, and the effective rate in the control group was 93.75%. Therefore, it is considered that Jiawei Yupingfeng Powder has a significant effect on the treatment of urticaria. Wu Shuang^[29] and others have confirmed that Yupingfeng Powder has a good therapeutic effect on facial recurrent dermatitis. They received 58 patients with facial allergic dermatitis and were randomly divided into two groups, 29 in each group. The control group (conventional western medicine treatment) and the experimental group (conventional western medicine combined with Yupingfeng powder treatment). The results showed that the symptoms of facial itching, flushing, swelling, papules or erythema were significantly lower in the experimental group than in the control group after 2 weeks. The effective rate and effective rate of the experimental group were 55.2% and 41.4% after 3 courses of treatment. Both were higher than the control group, indicating that the combination of Yupingfeng Powder on the basis of conventional western medicine treatment for patients with facial allergic dermatitis can effectively improve the symptoms of patients, and the long-term treatment effect is good. Zhao Wenxue^[30] and other treatments for chronic eczema showed that this side also has a good therapeutic effect on chronic eczema. 120 patients with chronic eczema were randomly divided into treatment group and control group with 60 cases each. The treatment group received oral Chinese medicine decoction (Xiefeng Sanyu Yupingfeng

Powder addition and subtraction) combined with external dehumidification and itching ointment treatment. The control group was treated with topical external application of dehumidification and itching ointment. The two groups were treated for 4 weeks. EASI scores were used as indicators of observation and their efficacy was evaluated. Results: The total effective rate and cure rate of the treatment group were 91.67% and 46.67%, respectively. The control group was 66.67% and 18.33%, respectively. Conclusion: Yupingfeng Powder combined with western medicine can effectively treat chronic eczema.

3.7 ENT

Because of Yupingfeng's replenishing lung, dispelling heat and Strengthen the body, it has a good therapeutic effect on conjunctivitis and keratitis. Peng Ju^[31] and other 78 patients with spring conjunctivitis (both eyes) were randomly divided into two groups. The treatment group was treated with Shengsiwu Decoction and Yupingfeng Powder for internal and external washing. The control group was given azelastine hydrochloride. Eye drops were treated and the clinical efficacy and recurrence rate of the two groups were compared. Results: The total effective rate was 93.88% in the treatment group, and 62.07% in the control group. After 1 year of follow-up, the results showed that the recurrence rate was 17.39% in the treatment group and 66.67% in the control group. This explained Yupingfeng powder had a good therapeutic effect on spring conjunctivitis.

3.8 Other Effects

This prescription can also be used to treat spontaneous sweating^[32], and has a certain inhibitory effect on primary liver cancer and cirrhosis^[33-34]. And have a certain clinical effect on stomach pain, edema, rheumatoid arthritis, psoriasis, gastroptosis, viral myocarditis, and hypertension.

4. Conclusion

Yupingfeng Powder and its compound have a wide range of pharmacological effects and clinical applications. If we can study its mechanism of action in depth, further explore its clinical therapeutic effects and make important guarantees for human health, it will be the direction that needs further research in the future.

References

- [1] Chen Xiangtao. Study on the immunomodulatory effect and mechanism of compound Chinese medicine Yupingfeng polysaccharide [D]. Anhui: Anhui Medical University, 2006.

- [2] Wu Xuefang, Liang Chunmin, Yu Pingfeng San, Serum Pharmacological Study on Activation of Mouse Peritoneal Macrophages. *Journal of Basic Chinese Medicine*, 2001(06): 11-12
- [3] Bao Yingcun, Zhang Lifeng, Cheng Weidong, et al. Comparative study on the proliferation and anti-aging effects of serum containing red peony and containing Huangqi Yupingfeng powder on spleen lymphocytes of aged mice[J]. *Pharmacology and Clinics of Chinese Medicine*, 2012(04): 3.
- [4] Jin Hongwei, Li Chaoying, Zhen Yanjun, et al. Effect of Jiawei Yupingfeng Powder on Electron Microscope Observation of Cold Pills in Aged Mice, 1997 (02): 55-56
- [5] Ding Hui. Exploring the Material Basis of Anti-tumor of Yupingfeng Powder Based on Cellular Biosolids Method [D]. Nanjing: Nanjing University of Traditional Chinese Medicine, 2018.
- [6] Wang Xiaoyu. Exploring the mechanism of Cimicifuga against atopic dermatitis based on the regulation of miR-155-5p on epithelial tight junction protein expression [D]. Nanjing: Nanjing University of Traditional Chinese Medicine, 2019.
- [7] Guo Nannan. Experimental study on atractylone-induced apoptosis of human liver cancer cells (HepG₂) [D]. Shenzhen: Shenzhen University, 2015.
- [8] Tong Xin. Pharmacological effects of the main active ingredients of Astragalus membranaceus [J]. *Shizhen Chinese Medicine and Materia Medica*, 2011 (05): 1246-1249.
- [9] Wang Yusheng, Zhang Baowei. Prevention and treatment of qi deficiency and cold with Guizhi Tanghe Yupingfeng Powder[J]. *Journal of Traditional Chinese Medicine*, 2019 (06): 1300-1303.
- [10] Ma Qiong, Niu Yang. Professor Niuyang's experience in treating allergic rhinitis with Yupingfeng Powder and Gegen Gypsum Decoction[J]. *World Medical Information Digest*, 2018 (96):319-320.
- [11] Zhai Youcang, Wang Yanqiong, Wang Qingying. Clinical analysis of Guizhi thickening Pu Xingzi Tanghe Yupingfeng Powder in the treatment of chronic obstructive pulmonary remission[J]. *World Medical Information Digest*, 2019 (31):191+194.
- [12] Huang Zhijing, Zhou Ailian. Research progress of cough variant asthma[J]. *Journal of Medical Research*, 2014(8): 185-187
- [13] Department of Respiratory Medicine, Pediatrics Branch, Chinese Medical Association. Guidelines for Diagnosis and Prevention of Bronchial Asthma in Children (2016 Edition) [J]. *Chinese Journal of Pediatrics*, 2016 (3): 167-181
- [14] Li Huali. Evaluation of the efficacy of Yupingfengsan combined with acupoint application in the treatment of children with cough variant asthma[J]. *Practical Clinical Medicine*, 2018 (12): 47-49.
- [15] Li Xuemei, Liu Yandong, Wei Zhuoxin. Clinical efficacy of Yupingfeng Sanhe Xiangsha Liujunzi Decoction in the treatment of spleen and stomach deficiency type diarrhea[J]. *Chinese Medical Innovation*, 2019 (11):71-74 .
- [16] Department of Medical Administration, State Administration of Traditional Chinese Medicine. 22 professional 95 Chinese medicine treatment programs [S]. Beijing: China Traditional Chinese Medicine Press, 2010: 435 - 443.
- [17] Liu Le, Ye Bai. Professor Ye Bai's Experience in Treating Ulcerative Colitis with Yupingfeng Powder[J]. *Journal of Traditional Chinese Medicine*, 2015 (03): 92-95.
- [18] Du Ruige. Yupingfeng Sanhe Zhibai Dihuang Decoction in the treatment of adult nephrotic syndrome clinical observation [J]. *Practical Journal of Traditional Chinese Medicine*, 2019 (03): 284-285.
- [19] Wang Yuhui, Wu Junli, Wei Shaobin. TCM Interventions for Prevention of Recurrence after Endometriosis[J]. *Chinese Journal of Traditional Chinese Medicine and Pharmacy*, 2014(7): 1 604-1 606.
- [20] Shi Zhao, Gao Yuan, Wei Shaobin. Application of Yupingfeng Powder in Gynecology Clinical Practice[J]. *Jiangxi Traditional Chinese Medicine*, 2019 (04): 79-80.
- [21] Du Zhibin. Effect of "Jinshui Xiangsheng" on ovulation-deficient infertility in kidney-yang deficiency [D]. Guiyang: Guiyang College of Traditional Chinese Medicine, 2014.
- [22] Xie Sizhen. Clinical observation of Jiawei Yupingfeng Powder in the treatment of postpartum sweating of qi deficiency[J]. *Shanxi Chinese Medicine*, 2015 (12): 36-36.
- [23] Zhang Jianhong, Lan Zhijian, Yang Shilong, et al. Serum immunology study on the treatment of allergic purpura in children with integrated Chinese and Western medicine therapy [J]. *Journal of Immunology*, 2014 (1): 89- 92.
- [24] Zhang Zhijun, Ma Nan. Clinical study of Qihuang granule combined with hydrocortisone in the treatment of children with allergic purpura [J]. *Modern Medicine and Clinical*, 2017 (7): 1293- 1296.
- [25] Bian Hongen, Chen Tuanying, Shan Haijun. Clinical study of Yupingfengsan combined with western medicine in treating allergic purpura in children[J]. *New Chinese Medicine*, 2019 (05):93-96.
- [26] Sun Xiaochen. Clinical observation of loratadine combined with Yupingfeng powder on allergic der-

- matitis[J]. *Chinese Medicine Guide*, 2019 (16): 128.
- [27] Wei Zikai, Cai Xi. Research progress in the treatment of chronic urticaria with traditional Chinese medicine[J]. *Journal of Liaoning University of Traditional Chinese Medicine*, 2019 (01): 214-217.
- [28] Kong Danyu. Jiawei Yupingfeng Powder for the treatment of 64 cases of chronic urticaria [J]. *Henan Traditional Chinese Medicine*, 2015(2): 359-361.
- [29] Zhang Wei, Sun Zhenyan, Zheng Jianfeng, Zhou Ao. Clinical observation of the treatment of facial recurrent dermatitis with chlorhexidine combined with Yupingfeng[J]. *Hebei Medicine*, 2017(15): 2267-2270.
- [30] Zhao Wenxue, Yang Manman, Sun Guohui, Li Bo, Chen Qihua. Clinical Observation on 60 Cases of Chronic Eczema Treated by Yupingfeng Sanhe Xiaofeng Powder[J]. *Hunan Journal of Traditional Chinese Medicine*, 2017 (08): 87-88 .
- [31] Peng Yi, Liu Wanli, Huang Jianliang, Wu Lilong. Therapeutic Observation on 49 Cases of Spring Conjunctivitis Treated by Shengsiwu Decoction and Yupingfeng Powder[J]. *Hunan Journal of Traditional Chinese Medicine*, 2019 (05): 61-62.
- [32] Xu Yi, Gu Qinghua. Gu Qinghua's treatment of self-sweat from "Wei Sanjiao" [J]. *Henan Traditional Chinese Medicine*, 2018 (07): 1088-1011.
- [33] Zhao Suxia, Liu Huili, Fan Wei, Jin Zujiao, Wang Juanjuan. Efficacy of Yupingfeng Powder in the treatment of primary liver cancer and its effect on anti-tumor immunity[J], 2017 (06): 713-717.
- [34] Xu Chuanfang, Mu Xianglin, Hu Zhenbin, Lv Jianlin, Chen Yonghong, Xiao Heng. Professor Hu Zhenbin used Yupingfeng Powder to prevent and treat cirrhosis decompensated concurrent infection[J]. *Journal of Integrated Traditional and Western Medicine on Liver Disease*, 2018 (02): 115-117.