

Experience of Famous Physicians



Clinical experience of professor LI Xiuhui in treating acquired immune deficiency syndrome (AIDS) complicated with opportunistic infections using the methodology of “turbid toxins entering the blood and expelling pathogens outwardly”

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Abstract

This paper summarized professor LI Xiuhui's experience in treating acquired immune deficiency syndrome (AIDS) complicated with opportunistic infections (OIs) using the methodology of “turbid toxins entering the blood and expelling pathogens outwardly”. OIs are significant cause of morbidity and mortality among AIDS patients. Professor LI Xiuhui believes that the pathogenesis of OIs lies in turbid toxins entering the blood, infecting the Sanjiao, damaging the nutrient Qi and defensive Qi, consuming Qi and essence, and impairing the primordial Qi. As a result, the five organs are weakened, pathogenic toxins overflow, leading to the occurrence of some related opportunistic infectious diseases in various systems throughout the body. Therefore, in treatment, the “penetrating and supporting method” and the “tonifying and supporting method” are used to consolidate and support the healthy Qi, allowing the pathogenic toxins to be expelled smoothly, so that the opportunistic infectious diseases can be cured or controlled.

Keywords: Acquired immune deficiency syndrome (AIDS), Opportunistic infections (OIs), Turbid toxin, Penetrating and supporting, Tonifying and supporting, Treatment experience, LI Xiuhui

1 Introduction

Acquired immune deficiency syndrome (AIDS) complicated with opportunistic infections (OIs) refers to secondary infections caused by opportunistic pathogens (such as bacteria and viruses) on the basis of immunodeficiency resulting from infection with the human immunodeficiency virus (HIV)^[1]. AIDS complicated with OIs is a significant cause of morbidity and mortality. OIs remains relatively high among untreated HIV-infected individuals or those with poor immune reconstitution after antiviral treatment.

Their clinical manifestations are complex and lack of typical features, making diagnosis difficult and badly treatment effects^[2].

Professor LI Xiuhui believes that AIDS complicated with OIs often occurs in patients with AIDS in the terminal stage during the long-term progression of chronic diseases. Analyzing from the aspects of the causes of infection, the routes of infection and the symptoms of the disease after infection, the pathogenic toxins have not been completely eliminated and the healthy Qi has been consumed, which

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should be categorized as the syndrome of consumptive disease with deficiency in origin and excess in superficiality in traditional Chinese medicine (TCM). Its pathogenesis can be summarized as turbid toxins entering the blood, infecting the Sanjiao, damaging the nutrient Qi and defensive Qi, consuming Qi and essence, and impairing the primordial Qi, which leads to the deficiency of the five Zang-organs and the overflow of pathogenic toxins, resulting in the occurrence of some related OIs in various systems throughout the body. Therefore, its clinical symptoms are complex, and multiple combined TCM syndrome types are commonly. Grasping the treatment principles of TCM is the key to the curative effect. Professor LI Xiuhui has proposed using the “penetrating and supporting method” and the “tonifying and supporting method” in the treatment of AIDS complicated with OIs, so that the healthy Qi can be consolidated and supported, the pathogenic toxins can be expelled smoothly, and the opportunistic infectious diseases can be cured or controlled.

2 Theoretical Significance and Foundation of the Supporting and Expelling Method (Tuofa)

2.1 Historical Origin and Records in Classic Medical Books of the Supporting and Expelling Method (Tuofa)

The application of the supporting and expelling method (Tuofa) can be traced back to *Huangdi Neijing*^[3]. In this book, its viewpoints such as “When healthy Qi exists internally, pathogenic factors cannot invade” and “Where pathogenic factors gather, there must be deficient in Qi” are mentioned, which reflects that the occurrence of diseases is the result of healthy Qi deficiency and pathogenic factors invasion. This is the origin of the concept of strengthening healthy Qi and expelling pathogenic factors in the supporting and expelling method. “Releasing the stagnated fire” can be regarded as the origin of the treatment concept of the penetrating and supporting method.

The book of *Waiké Zhengzong* written by CHEN Shigong in the Ming Dynasty contains relatively complete records the supporting and expelling method^[4]. In this book, prescriptions such as Tuoli Xiaodu San (decoction for supporting healthy Qi and eliminating toxin) were clearly put forward, and the specific application of the supporting and expelling method in the treatment of surgical diseases was elaborated in detail. XUE Ji mentioned that “disperse by supporting, rot by supporting, open by supporting, and astringe by supporting” in *Waiké Jingyao*^[5]. YE Gui, a doctor in the Qing Dynasty, mentioned the viewpoint that “when pathogenic factors enter the nutrient-blood level, it

is still possible to expel heat and transform Qi” in *Waigan Wenre Pian*^[6,7]. WU Jutong created prescriptions such as Qingying decoction, Qinggong decoction, and Qinghao Biejia decoction in *Wenbing Tiaobian*, all of which reflect YE’s treatment thought of the penetrating and supporting method. DING Ganren put forward that “for laryngeal scarlet fever, promoting sweating smoothly is of the first importance”, which reflects that expelling pathogenic factors and nourishing Yin are extremely important for the prognosis of scarlet rash.

In the Qing Dynasty, *Yizong Jinjian-Waiké Xinfā Yaojue* systematically summarized the supporting and expelling method, including its classifications, such as the penetrating and supporting method as well as the tonifying and supporting method^[8]. The penetrating and supporting method is to guide pathogenic toxins from deep to shallow, gradually localize the infected foci, and prevent them from spreading to a wider range^[9]. The tonifying and supporting method takes strengthening healthy Qi as the core^[10]. By supplementing the deficiencies of Qi, blood, Yin, and Yang in the human body, it enhances the body’s own resistance, thus promoting the body’s ability to clear pathogens, accelerating the absorption of inflammation and the repair process of tissues, and helping the healing and recovery of the infected foci.

2.2 Influencing Factors of Opportunistic Infections in AIDS

After HIV invading the immune system, CD4+T cells, dendritic cells and macrophages are significantly reduced, and the immune system is in a state of serious imbalance. Moreover, with the increase in the duration of opportunistic infections, the functional damage of CD4+T cells intensifies, aggravating the deficiency of cellular immune function^[11]. The HIV viral load can reflect the virus replication situation in AIDS patients and help judge the therapeutic effect. There is a correlation between the level of viral load and the possibility of OIs^[12]. Some patients still cannot restore their immune function even if they maintain long-term virological suppression, that is, they experience poor immune reconstitution. Immunocompromise and the long-term presence of chronic inflammation in the body are significantly correlated with a marked increase in the risk of OIs.

2.3 The Supporting and Expelling Method (Tuofa) in Traditional Chinese Medicine and Opportunistic Infections in AIDS

The supporting and expelling method in TCM shows unique advantages in immune regulation. The occurrence

and development of AIDS are due to the invasion of epidemic toxins and dampness-heat pathogens, which linger in the Sanjiao or lurk in the nutrient and blood aspects. Once the healthy Qi fails to overcome the pathogenic factors, the latent epidemic toxins will become active and rampant, spread from the interior along with Qi and blood throughout the Sanjiao, affect the defensive, Qi, nutrient and blood aspects, damage the Zangfu organs in the Sanjiao and the primordial Qi (primordial Yin and primordial Yang) of the life-gate, resulting in chronic systemic deficiency, and then lead to the formation of pathological products such as phlegm-turbidity and blood stasis, as well as the internal retention and lingering of various pathogenic toxins, thus forming a vicious pathological cycle^[13,14]. HE Lianchen advocated in *Revised Treatise on Epidemic Febrile Diseases (Chongding Guangwenre Lun)* that “the first priority is to expel the latent pathogens”. WANG Ji mentioned in *Case Records of External Medicine* that “supporting and expelling” must clarify the three methods of supporting healthy Qi, dredging and regulating Qi and blood.

The supporting and expelling method is based on the drugs for tonifying Qi and blood and expelling pus. The strengthening and supporting aspect focuses on strengthening healthy Qi, while the expelling and supporting aspect emphasizes expelling pathogenic toxins to prevent their spread and internal invasion. The “supporting and expelling” means to make the pathogenic factors move outward and upward and be expelled from the interior to the exterior. In modern medicine, it can be understood as being able to gradually restore the recognition and response functions of the immune system to normal through the adjustment of the overall state of the body. For example, while increasing the number and activity of CD4+T lymphocytes, it can also reasonably regulate the secretion and activity of various immune factors, thus creating a relatively stable and healthy internal immune environment and reducing a series of complications caused by excessive activation or suppression of immune function.

3 Clinical Application of the Supporting and Expelling Method (Tuofa) in AIDS Complicated with OIs

3.1 AIDS Complicated with Pulmonary Infection Pneumocystis Pneumonia (PCP)

Pneumocystis pneumonia (PCP) is a relatively common pulmonary complication in AIDS, mainly manifested by symptoms such as cough, fatigue and fever. AIDS patients with PCP often have complications such as pulmonary fibrosis, high alveolar-arterial oxygen partial pressure

difference, low serum albumin level, high serum lactate dehydrogenase level, high peripheral white blood cell count and low peripheral blood CD4+T lymphocyte count^[15].

Case: BO, a male, 50 years old, from Beijing, unmarried, medical record number: 406157. The patient was diagnosed as HIV antibody positive in a local hospital in February 2024 due to a hand injury and had never taken antiviral drugs regularly. One month ago, he experienced wheezing without obvious inducement, which worsened after activity, accompanied by intermittent cough, expectoration of white phlegm, and white mucous membrane covering the oral cavity, with no obvious fever. Currently, he has left chest pain, which is continuous and friction-like, and the cough is aggravated with expectoration of dark red phlegm. During the physical examination, the patient's body temperature was measured at 36.8 °C, with a pulse rate of 96 beats per minute and a respiration rate of 21 breaths per minute. The blood pressure was recorded as 106/68 mmHg. Upon auscultation, rales were detected in the left lung, and friction sounds were heard in both lungs. Additionally, skin lesions were observed in certain areas. Laboratory tests revealed a CD4+T cell count of 11 cells per microliter and an HIV viral load of 352,538 copies per milliliter. Western medicine treatment included Biktarvy and sulfamethoxazole (SMZ). The patient had been diagnosed with AIDS complicated by PCP. Syndrome differentiation presents as Yin toxin and Yang heat syndrome. The approach to treatment involves expelling external pathogens using a supporting and expelling method, while simultaneously clearing heat and eliminating pathogenic factors from the nutritive level. Prescription is as follows: Raw *astragalus membranaceus* 30 g, *codonopsis pilosula* 15 g, *polygonatum sibiricum* 10 g, *angelica sinensis* 12 g, *spatholobus suberectus* 12 g, *scutellaria baicalensis* 10 g, *taraxacum mongolicum* 15 g, *phragmites communis* 30 g, *coix lacryma-jobi* 30 g. 7 doses, decocted in water and taken twice a day. After taking the medicine, the cough significantly improved, the amount of phlegm reduced, and the number of CD4+T cells increased significantly.

Comments: This case is a classic application of the expelling and supporting method. AIDS complicated with PCP is a common clinical complication. Its etiological mechanism is that the damage to healthy Qi is the internal cause, and the invasion of pathogenic toxins into the lungs is the external cause. Due to the consumption of spleen Qi, the internal and external factors combine and directly affect the lungs. By ventilating the lungs and expelling the heat in the nutrient aspect and transferring

it to the Qi aspect, the effect of ventilating the lungs and expelling pathogenic factors can be achieved. As the heat comes from the Yin aspect, the AIDS virus belongs to Yin toxin, so the fever belongs to latent heat in the Yin aspect. Therefore, expelling heat from the Yin aspect where the heat-toxicity lurks is the main treatment method for PCP pneumonia. In this case, the patient had spleen deficiency and lung heat, and pathogenic toxins disturbed internally. *Astragalus membranaceus* and *codonopsis pilosula* were used to support healthy Qi, *phragmites communis* and *coix lacryma-jobi* were used to clear heat and expel pus, and *scutellaria baicalensis* and *taraxacum mongolicum* were used to expel toxins and phlegm. When the toxins were in the lungs, strengthening the spleen and using the expelling and supporting method could support healthy Qi while expelling heat toxins. It fully embodied the expelling and supporting method.

3.2 AIDS Complicated with Liver Abscess

The clinical characteristics of AIDS patients complicated with liver abscess are mainly that the abscesses usually locate in a single lobe, mostly in the right lobe of the liver, and they are prone to be complicated with extra-hepatic fungal infections, extrapulmonary tuberculosis and tonsillitis^[16]. Patients with liver abscess are characterized by the formation of gas cavities in the liver, rapid disease progression, difficult treatment and a high incidence of bacteremia.

Case: WANG, a female, 24 years old, from Yangquan, Shaanxi Province. Medical record number: 402796. Chief complaint: Fever for 1 month, dizziness and fatigue for 2 months. Medical history: The patient had dizziness and fatigue without obvious inducement 2 months ago, but did not pay attention to them or receive special treatment. One month ago, she began to have a fever, with the highest body temperature reaching about 39.5 °C, the fever pattern was irregular, occurred 2–3 times a day, accompanied by chills but no rigor, no cough or expectoration, and no abdominal pain or diarrhea. After taking antipyretics by herself, the body temperature could temporarily drop but was prone to recurrence. Blood routine examination results: White blood cell count of $10.5 \times 10^9/L$, neutrophil percentage 70%, lymphocyte percentage 25%, hemoglobin of 100 g/L, platelet count of $200 \times 10^9/L$. Liver function tests results: Alanine aminotransferase (ALT) levels were elevated at 120 U/L, aspartate aminotransferase (AST) levels were at 100 U/L, total bilirubin was 30 $\mu\text{mol/L}$, and direct bilirubin was 15 $\mu\text{mol/L}$. Albumin levels were normal at 35 g/L. Coagulation function assessment: Prothrombin time (PT) was measured at 13 s, with an international normalized ratio (INR) of 1.1. The activated partial thromboplastin time

(APTT) was 35 s. HIV antibody (HIV-Ab) test: The test result for HIV-Ab was positive. Abdominal ultrasound findings: The liver volume appeared enlarged, with a low echo mass observed in the right lobe, measuring approximately 5 cm×6 cm. The mass exhibited unclear boundaries, an irregular shape, and uneven internal echoes, leading to a high suspicion of liver abscess. Head computed tomography (CT) scan results: Multiple low-density shadows were detected in the brain, characterized by unclear boundaries and no obvious space-occupying effect. AIDS encephalitis and intracranial space-occupying lesions were considered as potential diagnoses. The patient underwent ultrasound-guided percutaneous catheter drainage of the liver abscess and was transferred to the Intensive care unit (ICU) for treatment after the operation. She developed respiratory failure and acute liver failure. She received respiratory support ventilation in the ICU, continuous renal replacement therapy (CRRT), and was given anti-infection and nutritional support at the same time. After her vital signs were stable, she was transferred back. Currently, she has dizziness, fatigue and poor mental state, and poor appetite. Diagnosis: AIDS, liver abscess (tuberculosis infection), hypoproteinemia, and abnormal coagulation function. TCM diagnosis: Consumptive disease, liver abscess with fever. Treatment: Prescribed with *rehmannia glutinosa* 15 g, *paeonia suffruticosa* 15 g, *scutellaria baicalensis* 10 g, *imperata cylindrica* 30 g, *lycium chinense* 30 g, *paeonia lactiflora* 15 g, *paeonia veitchii* 15 g, *cyperus rotundus* 6 g, *glycyrrhiza uralensis* 10 g, *ziziphus jujuba* 15 g, *hordeum vulgare* 30 g, *raphanus sativus* 10 g. One week after treatment, the frequency of the patient's fever decreased, and the body temperature fluctuated between 37.5 °C and 38 °C, and the symptoms of dizziness and fatigue were slightly relieved. After another two weeks of continuous treatment, the body temperature basically returned to normal, and the dizziness and fatigue were significantly alleviated. Abdominal ultrasound showed that the liver abscess was smaller than before, about 3 cm×4 cm in size. Head CT showed the low-density shadows in the brain and were not significantly changed compared with before. The initial treatment plan will be continued with ongoing consolidation therapy, regular monitoring of relevant indicators, and observation of condition changes.

Comments: The main causes of AIDS complicated with liver abscess are deficiency of healthy Qi and invasion of pathogenic toxins. Pathogenic heat and epidemic toxins take advantage of the deficiency and enter the body, water-dampness accumulates and turns into dampness-heat, which lingers for a long time, decocts blood into blood stasis, and the combination of dampness-heat and blood stasis in the

liver leads to the decay of flesh and the formation of pus, resulting in liver abscess. *Rehmannia glutinosa*, *paeonia suffruticosa* and *paeonia veitchii* are used to clear heat, cool blood, nourish Yin and promote fluid production. When the heat-toxicity of liver abscess is intense and Yin fluid is easily damaged, they can clear heat while nourishing Yin fluid. *Paeonia suffruticosa* and *Imperata cylindrica* can promote blood circulation and remove blood stasis, one can clear blood stasis and heat, and the other can nourish Yin and strengthen healthy Qi, so as to achieve the effect of expelling pathogenic factors without damaging healthy Qi and help healthy Qi expel the heat-toxicity and blood stasis in the liver. *Scutellaria baicalensis* and *lycium chinense* can clear liver fire, relieve the heat-toxicity of the liver, cool blood, remove steaming, clear lung fire, and *lycium chinense* enters the liver meridian to clear its deficiency heat. *Paeonia lactiflora* and *paeonia veitchii* are combined to use clearing heat, cooling blood and nourishing blood and softening the liver. When clearing the heat-toxicity of liver abscess, they do not forget to protect the Yin blood of the liver to prevent bitter and cold drugs from consuming healthy Qi, which is the embodiment of the combination of support and attack in the supporting and expelling method. By nourishing blood, softening the liver and regulating Qi and blood in the liver, the healthy Qi of the liver can be stabilized, and it can more effectively promote the expulsion of pathogenic toxins and facilitate the repair and regeneration of liver damage. *Cyperus rotundus* and *hordeum vulgare* can soothe the liver and regulate Qi, and regulate the Qi movement of the liver.

3.3 AIDS-related Skin Diseases

HIV related skin disease (HRSD) is common opportunistic infections in AIDS. 65%–90% of HIV/AIDS patients are accompanied by HRSD, and common ones include skin-related pruritic rashes, herpes zoster, papular urticaria, etc^[17]. HRSD has the characteristics of a long course, repeated attacks, atypical skin lesions and being related to the progression of HIV infection/AIDS^[18].

Case: ZHU, a female, 68 years old. Chief complaint: Repeated attacks of skin itching and papular urticaria for more than 3 months. Three months ago, for unknown reasons, she had itchy skin all over her body, and scattered papules appeared on her limbs and trunk. The papules were similar to urticaria but had atypical shapes and distributions. After scratching, the papules might merge, and the itching became more severe, which made it difficult for her to sleep and eat. She was diagnosed with AIDS. Currently, her mental state is poor, there are scattered papules on her body with red or dark colors. She has a poor

appetite. Her tongue is purple-dark with ecchymotic spots. Her tongue coating is thin and white, and her pulse is wiry, fine and unsmooth. Diagnosis: AIDS with skin rash. TCM diagnosis: Hidden rash (deficiency of liver and kidney, stagnation of Qi and blood in the skin). Treatment: Nourish the liver and kidney, remove blood stasis and dredge collaterals, and expel toxins. Modified Xijiao Dihuang decoction was used. Prescription: *Lonicera japonica* 15 g, *forsythia suspensa* 15 g, *bubalus bubalis horn* (substituted by water buffalo horn) 30 g, *rehmannia glutinosa* 20 g, *lithospermum erythrorhizon* 10 g, *scutellaria baicalensis* 10 g, *uncaria rhynchophylla* 15 g, *chrysanthemum morifolium* 15 g, *verbena officinalis* 30 g, *pheretima aspergillum* 10 g, *paeonia lactiflora* 15 g, *paeonia veitchii* 15 g, *codonopsis pilosula* 15 g, *angelica sinensis* 12 g, *glycyrrhiza uralensis* 6 g.

Comments: HRSD is mostly caused by deficiency of healthy Qi in patients and internal retention of pathogenic toxins, which manifest on the skin. This is related to the entry of toxins into the blood aspect and the stagnation of heat-toxicity and blood stasis. *Bubalus bubalis horn* (substituted by water buffalo horn) can clear heat, cool blood and detoxify, and is the chief drug. Water buffalo horn can directly relieve the heat-toxicity in the blood aspect, which is the vanguard force for expelling pathogenic factors to relieve the accumulation of heat-toxicity in skin diseases, an important manifestation of “expelling pathogenic factors outwardly” in the supporting and expelling method. *Rehmannia glutinosa* can clear heat, cool blood and nourish Yin, and *paeonia veitchii* and *paeonia suffruticosa* can cool blood and remove blood stasis, all of which assist the chief drug to clear the heat-toxicity in the blood aspect. This prescription is like a vanguard army, directly attacking the lair of pathogenic factors, clearing the main obstacles for expelling pathogenic factors outward, reducing the momentum of heat-toxicity, which is an important manifestation of “eliminating pathogenic factors to protect healthy Qi” in the supporting and expelling method. *Scutellaria baicalensis* is bitter and cold, and is good at clearing heat in the lung, stomach, gallbladder and large intestine. In the prescription, it can clear heat in the upper Jiao, guide the power of various drugs to reach the skin surface, and cooperate with Xijiao Dihuang decoction to enhance the effect of clearing heat and toxins on the skin, expanding the path for expelling pathogenic factors in the supporting and expelling method and making heat-toxicity be eliminated from both the interior and exterior. *Uncaria rhynchophylla* and *chrysanthemum morifolium* can soothe the liver and subdue wind, clear the liver and improve vision, and their properties are mild and ascending, which can disperse wind-heat in the liver meridian and expel the

heat-toxicity accumulated in the skin upward and outward. This is the specific application of “lifting and expelling” in the supporting and expelling method. By taking advantage of the ascending and dispersing properties of drugs, it can lead pathogenic toxins to be expelled, reduce swelling and itching of the skin. *Verbena officinalis* and *lithospermum erythrorhizon* can clear heat, detoxify, activate blood circulation and remove blood stasis, can assist in clearing heat-toxicity and blood stasis on the skin, make pathogenic toxins have nothing to rely on, and their blood-activating effect can promote the circulation of Qi and blood in the skin, facilitate the expulsion of pathogenic toxins from the body, further improve the mechanism of expelling pathogenic factors. Adding *codonopsis pilosula*, *angelica sinensis* and other drugs to tonify the acquired foundation which can produce Qi and blood.

3.4 AIDS Complicated with Cytomegalovirus (CMV) Encephalitis Infection

Opportunistic infections in the central nervous system (CNS) are rare yet severe complications of AIDS, which can lead to paralysis or rapidly fatal encephalitis^[19]. Cytomegalovirus (CMV) encephalitis is mainly seen in patients with a CD4+T cell count of less than 50 cells/μl. Its clinical characteristics include progressive changes in mental state, delirium, rapidly progressive impairment of cognitive function or brainstem injury^[20].

Case: YANG, a male, 34 years old, from Inner Mongolia, Medical record number: 403881. Chief complaint: One episode of loss of consciousness after limb convulsions, accompanied by fever and diarrhea for one month. One month ago, the patient had symptoms such as fever and diarrhea without obvious inducement, and then had limb convulsions, losing consciousness several minutes later. He was hospitalized in a local hospital for diagnosis and treatment. Antipyretic and symptomatic treatments were given, and a trace amount of albumin was found in the cerebrospinal fluid after spinal puncture. Intravenous immunoglobulin and fluid replacement therapies were also administered, but the effects were not obvious. Currently, he is suffering from fatigue, occasional high fever, obvious spontaneous sweating, poor appetite and anemia. He is currently taking Biktarvy orally, and his CD4+ level remains normal. At present, he has clumsy speech, decreased memory, still has a low fever, a dull complexion, a sluggish mental state, inability to eat, poor sleep and diarrhea. Current symptoms also include weakness, a sallow complexion, anemia, yellow and thick greasy tongue coating and a rapid pulse. Western medicine diagnosis: AIDS; Central nervous system infection: Neurosyphilis, viral

encephalitis (caused by Epstein-Barr (EB) virus), toxoplasma encephalitis; Cytomegalovirus infection. TCM diagnosis: AIDS, syndrome of dampness blocking the Sanjiao. Treatment: Strengthen the spleen and remove dampness, clear heat and detoxify, and dredge the Sanjiao. Prescription: Raw coix lacryma-jobi 30 g, semen armeniacae amarum 9 g, semen amomi rotundus 5 g, cortex magnoliae officinalis 10 g, fructus aurantii immaturus 10 g, areca catechu 6 g, herba plantaginis 30 g, rhizoma atractylodis 9 g, radix curcumae 10 g, radix et rhizoma rhei (processed with wine) 10 g, pericarpium citri reticulatae 6 g, rhizoma pinelliae (processed with ginger) 9 g, scutellaria baicalensis 10 g, cortex phellodendri 10 g. 7 doses, with two decoctions per day. Prepared by decocting in water and take one dose in the morning and one in the evening, after meals. At the follow-up visit, the patient's mental state was significantly improved. He reported that his appetite had improved, slept well. His fatigue was significantly relieved, his body temperature was normal, and all examination indicators were normal. He was ready to take medicine home after discharge.

Comments: For AIDS complicated with cytomegalovirus encephalitis, its pathogenesis is that damp-turbidity and epidemic toxins accumulate internally, block the Sanjiao, cloud the clear orifices, and the healthy Qi is damaged and unable to resist the pathogenic factors or expel them. The Sanren decoction can smooth the Qi movement of the Sanjiao and disperse damp-turbidity. Adding drugs such as *rhizoma atractylodis*, *radix et rhizoma rhei*, *radix curcumae*, *rhizoma polygonati*, *rhizoma coptidis* and *cortex phellodendri* can either dry dampness and strengthen the spleen, or purge heat by unblocking the bowels, or promote Qi movement and blood circulation, or strengthen healthy Qi and nourish Yin, or clear heat, purge fire and detoxify. Through multi-faceted cooperation, by means of regulating Qi movement, expelling pathogenic factors and purging turbidity, strengthening healthy Qi and nourishing Yin, etc., the healthy Qi gradually becomes stronger and has the ability to support and expel the pathogenic factors of damp-turbidity and epidemic toxins, thus improving the symptoms of AIDS complicated with cytomegalovirus encephalitis and alleviating brain lesions.

4 Synergistic Enhancement of the Supporting and Expelling Method (Tuofa) with Other TCM Treatment Methods

4.1 Combination with the Promoting Blood Circulation and Removing Blood Stasis Method

Professor LI Xiuhui believes that in the treatment of opportunistic infections in AIDS, the rational application of

drugs for promoting blood circulation and removing blood stasis can improve local blood circulation, promote the dissipation of inflammation and tissue repair. Commonly used drugs for promoting blood circulation and removing blood stasis include *radix salviae miltiorrhizae*, *paeonia veitchii*, *semen persicae*, *flos carthami* and *rhizoma chuanxiong*. These drugs have the effects of dilating blood vessels, reducing blood viscosity, inhibiting platelet aggregation and improving microcirculation. When using drugs for promoting blood circulation and removing blood stasis on the basis of expelling toxins, attention should be paid to drug compatibility. For example, drugs for clearing heat and detoxifying such as *lonicera japonica*, *forsythia suspensa* and *taraxacum mongolicum* can be combined with drugs for promoting blood circulation and removing blood stasis to achieve the synergistic effect of clearing heat and detoxifying as well as promoting blood circulation and removing blood stasis. At the same time, appropriate drugs for tonifying Qi and nourishing blood, nourishing Yin and tonifying the kidney can also be combined according to specific conditions to enhance the body's resistance and repair ability.

4.2 Combination with the Nourishing Yin and Clearing Heat Method

In the late stage of AIDS, the fever caused by opportunistic infections is mostly manifested as internal heat due to Yin deficiency. Therefore, nourishing Yin fluid and clearing internal heat can create a good internal environment for the body to help expel pathogenic factors. *Rehmannia glutinosa* has the functions of clearing heat, cooling blood, nourishing Yin and promoting fluid production. It can not only replenish the consumed Yin fluid and also clear the internal heat in the body. *Radix scrophulariae* can clear heat, cool blood, nourish Yin, reduce fire and resolve toxins. While nourishing kidney Yin, *radix scrophulariae* can also purge fire and detoxify, which has a relieving effect on various symptoms caused by internal heat due to Yin deficiency in the late stage of AIDS. With the sufficiency of Yin fluid and the clearance of internal heat, the healthy Qi of the body is restored and the immune function is gradually improved, so that it can better resist OIs. Meanwhile, symptoms such as fever, night sweats and dry mouth and throat caused by internal heat due to Yin deficiency would also be alleviated, achieving the dual effects of regulating the body's immunity and relieving symptoms.

5 Conclusions

In conclusion, the condition of AIDS is complex, and the treatment is especially difficult after combined with OIs.

This article focuses on the methodology of “turbid toxins entering the blood and expelling pathogenic factors outwardly”, emphasizes the combined use of various methods such as expelling pathogenic factors, tonifying, expelling and clearing, and discusses the treatment of AIDS complicated with multiple OIs by combining traditional and western medicine. In the treatment of AIDS complicated with PCP, the supporting and expelling method is used to strengthen healthy Qi and make drugs reach the diseased area. For AIDS complicated with liver abscess, the method of expelling pathogenic factors outward makes the infectious foci gradually reduce. For AIDS-related skin diseases, expelling toxins outward can improve skin itching, rashes and other symptoms and promote skin repair. In the case of AIDS complicated with cytomegalovirus encephalitis infection, it can alleviate brain inflammation, improve neurological function and relieve symptoms such as headache and abnormal mental state. By effectively regulating the body's immunity, improving the symptoms and signs of AIDS patients after combined with opportunistic infections, improving the quality of life and delaying the progression of the disease, this article provides a clinical idea for the treatment of AIDS complicated with OIs by combining traditional and western medicine.

Ethical Approval

Informed consent for publication was obtained from the patient and authorization was obtained from the Ethics Committee of Beijing Fengtai You'anmen Hospital.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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