

# Professor Feng Yuan's Experience in Treating Lung Cancer with Bufe Huayu Decoction

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**Abstract:** Lung cancer is one of the malignant tumors of the respiratory system, which has the fastest increase in morbidity and mortality in the past 100 years. What's more, it threatens human health and life. The 2020 World Cancer Report states: Lung cancer is currently the leading cause of cancer deaths worldwide, accounting for about 18% of all cancer deaths [1]. The National Cancer Center released the latest issue of national cancer statistics in 2019: Lung cancer is at the head of malignant tumor in China in terms of incidence (20.03%) and mortality (26.99%). Some Chinese medicines have good effects on inhibiting the growth and spread of cancer cells, and can significantly improve symptoms and patients' quality of life in the treatment of lung cancer. Pattern of qi stagnation and blood stasis is one of the basic patterns of lung cancer patients, so the treatment of boosting qi and quickening the blood occupies an important position in the treatment of lung cancer[2]. Professor Feng Yuan believes that the onset of lung cancer is the root vacuity and tip repletion, root based on qi vacuity and tip is the result of mutual influence of phlegm turbidity and depressed accumulation of static blood. Due to the long-term disease, the formation of the accumulation eventually leads to the formation of cancer. He pays special attention to in treatment, at the same time, combines with clinical practice and regards them as the basis for determining treatment. Consequently, he innovatively proposed to treat lung cancer of pattern qi vacuity with blood stasis by supplementing lung qi and quickening the blood and transform stasis.

**Keywords:** Lung cancer, pattern qi vacuity with blood stasis, Bufe Huayu Decoction, FENG Yuan, Summary of experience

Primary bronchial lung cancer, referred to as lung cancer, is a malignant tumor originating from the bronchial mucosa or glands [3]. In recent years, treatment of traditional Chinese medicine has outstanding advantages in dissipating stasis and detoxifying, improving immunity, delaying tumor progression, inhibiting cancer cell growth, improving quality of life and low side effects, so it occupies an important position in the treatment of cancer. Pattern qi vacuity with blood stasis is the pattern type of most patients with lung cancer [4-5], which is one of the basic types of lung cancer. Professor Feng Yuan who has been engaged in clinical, teaching, and scientific research in lung diseases for 18 years is good at the diagnosis and treatment of bronchial lung cancer, respiratory failure, lung infectious diseases and other respiratory system diseases with combined therapy of Chinese and western medicines. He advocates the common progress of Chinese and Western medicine and both of them should learn from each other's strength. At the same time, he attaches great importance to the combination of disease judgment and pattern identification. He has achieved good clinical effects in the treatment of lung cancer diagnosed with pattern of qi stagnation and blood stasis and has accumulated rich clinical experience. In the past three years, the author has the honor to learn clinical knowledge from Professor Feng Yuan and has benefited a lot. This article summarizes his clinical experience in treating lung cancer with pattern of qi stagnation and blood stasis in order to provide clinical support for TCM treatment of lung cancer.

## 1. The Pathogenesis of Lung Cancer

In traditional Chinese medicine, according to the symptoms, lung cancer belongs to the categories of "lung accumulation", "cough", "coughing of blood", "chest pain", and "rushing respiration". This disease is based on insufficiency of right qi. Then it is affected by external contraction of the six excesses or internal damage by the seven affects and food, which leads to imbalance between Yin and Yang of the zang-fu viscera, phlegm-rheum and damp turbidity accumulate in the human body, causing inhibited flow of qi and blood in the lungs, eventually leads to lung qi dysfunction, abnormal

circulation of water-humor and body fluid, inhibited qi dynamic and flow of blood, mutual influence of blood stasis and toxin, which gradually accumulate into lung cancer. The main clinical manifestations of lung cancer are cough, expectoration, coughing of blood, chest pain, fever, asthma and so on. Based on the analysis of the etiology, pathogenesis and characteristics of lung cancer, the pathogenesis of lung cancer is a process of interaction between right qi and evil qi. Therefore, the clinical pattern type can be roughly divided into two types: exuberant evil and vacuous right. The therapeutic principle is to focus on supporting right and dispelling evil, supplementing and attacking simultaneously.

Professor Feng Yuan holds the opinion that where pathogenic factors accumulate, the parts of the body must be deficient in the vital qi. It is stated in *Theories of the Sources and Signs of Various Diseases*: "When human's Zang-Fu are weak and yin is in disharmony with yang, the invasion of the wind evil can harass visceral qi and then results in accumulations and gatherings." This book also says: "Only when visceral qi invades and stagnates in human body can accumulations and gatherings appear." The deficiency of qi, which is the primary pathogenesis of lung cancer, can cause asthenia of Zang-Fu function and qi-blood-body fluid movement. Lung connects all vessels, governs qi of entire body, dominates movement of water, holds the management and regulation of vital functions, and governs diffusion and depurative downbearing. Thus asthenia of lung qi makes lung lose power to regulate qi of entire body. The disturbance of diffusion and downbearing causes disorder of waterways then retards body fluid movement. As the "prime minister", once lung neglects its duty of assisting "monarch", it will lose the ability to regulate qi-blood-body fluid and Zang-Fu functions. (As the "prime minister", if it has out of action, it couldn't assist "monarch" to regulate qi-blood-body fluid and Zang-Fu functions.) Moreover, as a delicate viscus, lung can be easily invaded by pathogenic factors especially when lung qi is weak. Then pathological products including qi stagnation, blood stasis, phlegm turbidity, damp turbidity and heat toxin mix and accumulate in human body. Therefore, the tumor has an opportunity to grow into a cancer. The pathogenesis specialty of lung cancer is root deficiency and branch excess. Deficiency of lung qi is the basic pathogenesis of cancer, in which pathological products such as stasis, phlegm-damp and heat toxin are also involved.

## 2. Theoretical basis of Bufe Huayu Decoction

### 2.1. Principle of Treatment

Pattern qi vacuity with blood stasis is one of the common TCM pattern types of many clinical diseases [6], at the same time, it is also an important pattern type of advanced lung cancer [7]. The clinical symptoms usually are as follows: pale white or somber facial complexion, lack of strength, shortage of qi with inability to catch breath, stabbing pain which often occurs in the chest and rib-side, pain of fixed location, pale or purple macules tongue and the sunken and rough pulse [8]. Professor Feng Yuan's clinical treatment of lung cancer with pattern qi vacuity with blood stasis is often based on supplementing lung qi and quickening the blood and transforming stasis. And follow the principle of "Cultivating vital Qi will dissipate accumulations and gatherings dissipate", "After a period of time to dispel evils, it is necessary to stop for a period of time to allow the patient to replenish nutrition, and then proceed to the next round of dispelling evils" and "Replenish human body's vital Qi and dispel evil". He pays attention to the principle of supplementing and attacking simultaneously. It is stated in *Jingyue's Complete Works*: "The treatment principles of accumulation are mentioned in many books, but in general, there are four treatment principles: attacking, dissipating, scattering and supplementing." These four methods, either attacking tumor, or eliminating accumulation, or dissipating binds, or supplementing, are often clinically based on the patient's pattern type. (On the basis of patient's pattern type, doctors always use these four methods: attacking tumor, eliminating accumulation, dissipating binds or supplementing.) When treating diseases, the four methods can be get four together, or three together, or two together, or even only one. Different methods have different benefits. It is stated in *Danxi's Mastery of Medicine*: "Accumulation disease can't be treated with cathartic drug, otherwise it will hurt the vital qi and the disease will not be healed. It should be treated with drug of disperse accumulations and the disease will heal." Professor Feng Yuan believes that we should not blindly use cathartic drug to attack tumor. We are ought to avoid "killing a thousand enemies, harming one's own eight hundred" and damaging the vital qi while dispelling evils. The treatment should not forget transforming stasis and dissipating binds while supplementing the lung qi. So as to achieve the purpose of supporting right and dispelling evil, which also coincides with the western medicine theory of living with tumors and improving the quality of life of cancer patients.

## 2.2. Selected Formula and Medication

In the treatment of lung cancer with pattern of qi stagnation and blood stasis, professor Feng Yuan often used Bufeï Huayu Decoction [9] as the basic formula, and the composition of the following drugs: Codonopsis 20g, Astragalus 20g, Aster 12g, Peucedanum 12g, Almond 10g, Fresh rehmannia 15g, Turtle shell 5g, Red peony root 10g, Salvia 10g, Chuanxiong 10g, Sparganium 10g, Curcuma 10g, Oldenlandia diffusa 30g, bearded scutellaria 30g, Licorice 6g. Bufeï Huayu Decoction is a pure Chinese medicine formula. It removes schisandra and mulberry bark for Bufeï Decoction. Cooked rehmannia is changed to fresh rehmannia, and red peony root, sparganium, rhizoma curcumae, salvia and chuanxiong are added to quicken the blood and transform stasis. Anticarcinogenic Oldenlandia diffusa, bearded scutellaria for clearing heat and resolving toxin, turtle shell is nourishing Yin and root as well as aster, peucedanum, and almonds for suppressing cough and transforming phlegm, and licorice which harmonizes various medicines. It has the effects of nourishing qi of lung, quickening the blood and transforming stasis.

The tonifying lung and transforming stasis decoction can be used for pattern qi vacuity with blood stasis, such as pale complexion, fatigued spirit and lack of strength, less qi and lazy speech, stabbing pain, pain of fixed location, and pain refusing to press, dark tongue or purple spots, thin tongue fur, stringlike and rough pulse, etc, which could tonify lung qi, quicken the blood and transform stasis. "The reason why we use ginseng and astragalus for lung deficiency is that spleen is the mother of lung and qi is the mother of water." The lung belongs to metal, spleen belongs to earth and the earth engenders metal. Vacuity is treated by supplementing the mother because a strong mother gives birth to a child naturally. In the decoction, the ginseng and astragalus root into lung channel and spleen channel, which can fortify the spleen, supplement lung and engender liquid. By using two together, it can strengthen the effect of fortifying the spleen and supplementing qi. Therefore, it is often used for fatigue and lack of strength, shortness of breath, cough and panting, etc, which are caused by lung qi deficiency; Heart pertains to fire on the analogy of five-phase theory, and heart-fire attacks lung-metal. The disturbance of diffusion and downbearing causes disorder of lung water, water depression and sputum. Then the symptom including cough, expectoration and suffocative catarrh appears. Aster enters the heart channel. Radix Peucedani enters the lung channel, meanwhile its bitterness flavor enters heart channel and clears heart fire. Moreover, aster's pungent herbs moistening lung, and its warm nature supplements vacuity. Aster can also suppress cough and transform phlegm. Radix Peucedani downbears qi and transform phlegm. Bitter apricot seed's bitter flavor can downbear qi, then suppressing-cough and calming-panting. The combination of the above three medicine can therapy the syndrome pattern named qi stagnancy- sputum blockage and panting and cough. Turtle shell enters lung and kidney channel, and its salty flavor can soften hardness downbear dryness. Turtle shell can also nourish yin and suppress hyperactive yang, soften and resolve hard masses. Fresh rehmannia enters kidney and spleen channel, it can clear heat and nourish yin and regenerate liquid. The mixture of turtle shell and fresh rehmannia is aimed to nourish yin and bank up the root. Red peony, in accordance with record of historical document: "The red enters heart and intestine channel. Heart controls the blood circulation and intestine governs changes. Thus red peony keeps relieving blood and never stop. ", has the ability to clear heat and cool the blood. Red peony can also dispel stasis and relieve pain. Lung is sorted to metal and governs qi. Red peony, sorted into fire, which has bitter flavor and red colour, enters pericardium and heart channel. Red peony clears the heart and drain fire, and it can invigorate qi because fire doesn't damage metal. It is stated in Liang Fang: "The use of red peony alone ...can break blood stasis and regenerate fresh blood. It can also quiet healthy fetus and abort the dead fetus." Red peony, as the good medicine to move blood, has the ability to quicken the blood and dispel stasis as well as nourish blood and tranquilization. Medicine named qi-in-blood medicine, such as common burreed rhizome, rhizoma curcumae and rhizoma ligustici, can relieve blood and dispel stasis as well as move qi and alleviate pain. They are applicable to bump and accumulation, which is caused by qi stagnation and blood stasis. That's because blood can't flow without qi. Blood is named the mother of qi, and qi is called the captain of blood. The three medicine are used along with red peony, to activate blood circulation and dissipate blood stasis. Hedyotis diffusa has the ability to clear heat and resolve toxin as well as disinhibit dampness and disperse welling-abscesses, which is used to therapy poisonous snake bite, sore swollen throat and malignant tumour [10]. Bearded scutellaria also has various functions, such as clear heat and resolve toxin, quicken the blood and dispel stasis, disperse swelling and relieve pain, anticancer, etc [11]. The above two medicine are used together in up-to-date TCM treatment, which use their ability of clearing heat and resolving toxin to therapy various types of cancer. Radix Glycyrrhizae boosts qi and harmonizes the center, and it also makes all the above medicine in harmony. All the medicine in this formula are used together to boost qi and nourish yin as well as transform stasis and anti cancer, thus both branch and root diseases are treated. The specialty of this formula is that both yin and

qi are protected well while clearing heat and resolving toxin and activating blood circulation. Thus qi and blood flows without barrier, and blood stasis as well as painful swelling dissipates, then tumor is dispelled.

### 3. Examples of typical medical records

Wang mou, male, 61 years old, first outpatient visit on May 16, 2018.

Chief complaint: cough and sputum for 2 months.

The patient developed a cough 2 months ago, coughing a large amount of thick white sputum, wheezing, chest tightness, weakness of the limbs, pain in the chest and flank, poor appetite for sleep sound, and normal stool. A chest CT scan revealed a right hilar mass. Consider central lung cancer with metastasis to the right hilar and mediastinal lymph nodes. Bronchofiberscope pathology in April showed moderately differentiated lung squamous cell carcinoma. The patient is in poor spirits, complexion is pale, right lung and lower lung breath sounds weakened, moderate moist rales can be heard in both upper lungs, and the patient has purple and pale tongue, white tongue fur, slow and stagnant pulse. The patient comes to the clinic for Chinese medicine treatment.

Auxiliary examination: Check chest CT revealed: right hilar mass (4.0cm×2.3cm), consider central lung cancer with metastasis to right hilar and mediastinal lymph nodes; a small amount of bilateral pleural effusion. April Bronchofiberscope pathology: lung squamous cell carcinoma, moderately differentiated.

Western medicine diagnosis: differentiated squamous cell carcinoma of the right lung.

TCM diagnosis: lung accumulation- pattern qi vacuity with blood stasis

selected formula and Chinese materia medica: formula are selected from the selection of Bufe Huayu Decoction, 30g Codonopsis, Astragalus 30g, Aster, Stemona 15g, Add Medicated leaven 10g, Licorice 10g, Stir-fried Malt 10g, Flowery Knotweed Stem 20g. 7 doses, decocted in water.

Re-examination on May 26, 2018: The patient's cough was reduced compared with the previous one, the sputum still remained, the white matter of sputum was thick, and the amount was reduced compared with the previous one. The cough and sputum were obvious in the morning, compared with the previous period, the asthma was relieved during the cough drama, fatigue improved, the chest and flank were still painful, the appetite is normal and the sleeping is good, with dark tongue and thin, slimy tongue fur and sunken-stringlike pulse. Continue to use this formula for the formula is effective. Because sleeping is improved, it is time to remove the Flowery Knotweed Stem, add 20g dioscorea to boost qi and nourish yin and supplement splenic. 14 doses, taking decocted with water.

3rd consultation on June 10, 2018: The symptoms of cough and sputum were significantly relieved, limb weakness and asthma symptoms ameliorate, occasionally chest and flank pain, the appetite is normal and the sleeping is good, with loose stools, pale tongue and slimy white tongue fur, sunken pulse. The original formula adds 15g of Poria and 10g of epimedium to enhance the power of dispelling dampness and fortifying the spleen. 28 doses, taking decocted with water.

In the 4th consultation on August 2, 2018, the patient took the medicine for more than one month and complained of occasional cough, no sputum, no weakness of the limbs, no obvious discomfort such as asthma and chest pain. The chest CT showed: right hilar mass (3.0cm×1.8cm), consider central lung cancer with right hilar and mediastinal lymph node metastasis; all pleural effusion is absorbed. The patient has good appetite and sleeping with dim tongue, thin and white tongue fur and fine rapid stringlike pulse.

According to the patient's symptoms include coughing, a large amount of white thick sputum, asthma, chest tightness, weakness of the limbs, pain in the chest and flank, poor sleep soundness and spirits, pale complexion, dim tongue, thin and white tongue fur, moderate and pulse, the diagnosis of lung cancer is clear, and it is the pattern type of pattern qi vacuity with blood stasis. Mentioned in General Records of Holy Universal Relief: "Tumors are caused by qi stagnation and blood stasis or evil qi staying in the body but not going away. "If vital qi exists in the body, evil qi cannot harm the human body, lung accumulation is based on insufficiency of vital qi and is affected by external contraction of the six excesses, which leads to dysfunction of the zang-fu viscera and lung qi, phlegm-rheum and static blood accumulate in the human body, which gradually accumulates into lung cancer. In this case, due to weakness of vital qi, invasion of external evil, dysfunction of lung qi and body fluid, phlegm

congealing and stagnation of qi , so coughing and coughing a lot of white thick sputum, pain is blocked, and qi is the commander of blood. Deficiency of qi and inability to promote blood circulation, the formation of blood stasis and poor circulation can cause pain and discomfort in the chest and flank. On the basis of insufficiency of right qi in the body, phlegm turbidity, static blood and poison stagnate lung qi, leading to disturbance of diffusion and downbearing, causing panting on exertion and weakness of limbs. Therefore, it should be treated with the method of supplementing the lung qi and quickening the blood and transform stasis. The decoction of Bufe Huayu Decoction is selected as the formula, which can support right and bank up the root and dispel evil at the same time. In the first outpatient clinic, the patient was overwhelmed due to his illness, resulting in poor diet and sleep. There is a famous saying: "the qi of the spleen and stomach hurts, and the primordial qi cannot be filled."The spleen and stomach are the source of primordial qi , so medicated leaven and malt are used to fortify the spleen and boost qi, and the flowery knotweed stem is used to nourishes blood and tranquilize. At the 3rd consultation, the patient's symptoms were significantly improved. poor diet, loose stools, long-term illness can cause spleen and stomach weakness, and lead to movement and transformation failure, water-damp is blocked in the intestines, causing loose stools .Therefore, Poria and Epimedium are added to dispel dampness and fortify the spleen. After taking the medicine for more than one month, the CT scan showed that the tumor was smaller than before; there were no signs of metastasis, and the symptoms improved significantly. The patient was asked to come to the clinic regularly.

#### 4. Summary

Lung cancer is a common malignant tumor disease with high incidence and poor prognosis. In the treatment of pattern qi vacuity with blood stasis in this disease, professor Feng Yuan is guided by the concept of " support right and dispel evil", based on the location of the disease and the nature of root vacuity and tip repletion of the disease, he proposed to supplement the lung qi and quicken the blood and transform stasis as the treatment. The clinical application found that the treatment of Bufe Huayu Decoction can significantly improve the symptoms of patients with cough, sputum, asthma, fatigue and so on , and the visible tumor have also been reduced, and the quality of life has been improved without side effects. It is worthy of further clinical application.

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