

A Review on Lung Cancer Treatment Based on Theories of Huangdi Neijing

Siyue Niu¹, Hui Wei^{2,*}, Dan Wei¹

¹Shaanxi University of Chinese Medicine, Xianyang 712046, Shaanxi, China

²Oncology Hospital, Affiliated Hospital of Shaanxi University of Chinese Medicine, Xianyang 712000, Shaanxi, China

*Correspondence Author

Abstract: *This paper aims to explore the diagnosis and treatment of lung cancer combined with theories of Huangdi Neijing (Huangdi's Internal Classic). By analyzing discussions on human physiology and pathology, zang-fu organs and meridians, as well as the relationship between healthy qi and pathogenic factors recorded in Huangdi Neijing, this paper excavates its guiding significance for the etiology, pathogenesis, clinical manifestations, syndrome differentiation and treatment, health preservation and prevention of lung cancer. It provides theoretical basis and innovative clinical thinking for the TCM treatment of lung cancer, so as to promote the application and development of traditional TCM theories in the treatment of modern malignant tumors.*

Keywords: Huangdi Neijing, Lung Cancer, Etiology, Pathogenesis, Clinical Guidance.

1. Introduction

Lung cancer is one of the malignant tumors with the highest incidence and mortality worldwide. Traditional Chinese medicine boasts unique advantages in tumor treatment, mainly reflected in lowering the risk of precancerous lesions, reducing tumor metastasis and recurrence, improving patients' quality of life, preventing multidrug resistance, alleviating myelosuppression, enhancing efficacy and reducing toxic side effects of radiotherapy and chemotherapy, as well as palliative care. As one of the four great classics of TCM, Huangdi Neijing lays the theoretical foundation of traditional Chinese medicine and contains abundant wisdom for life science and disease prevention and treatment. In-depth exploration of the combination points between theories of Huangdi Neijing and lung cancer treatment helps elevate TCM diagnosis and treatment capacity for lung cancer, and provides new perspectives and approaches to tackle this critical malignant disease.

2. Understanding the Etiology of Lung Cancer from Huangdi Neijing

2.1 Insufficient Healthy Qi

Huangdi Neijing (Huangdi's Internal Classic) emphasizes that "If healthy qi resides within the body, pathogenic factors cannot invade" and "Where pathogenic factors gather, healthy qi must be deficient." The onset of lung cancer is primarily closely associated with insufficiency of human healthy qi. Healthy qi encompasses innate essence acquired at birth and postnatal qi, such as qi generated from the transportation and transformation of food and fluid by the spleen and stomach.

Spiritual Pivot · On the Origins of All Diseases states: "Therefore, when deficient pathogenic factors attack the human body, they first invade the skin. Loose skin leads to open interstitial spaces. If the pathogenic factors linger and are not eliminated, they transmit and lodge outside the intestines and stomach, between the membrane sources, attach to the vessels, persist without being expelled, and gradually aggregate to form masses." It also notes: "Attack by deficient

pathogenic factors arises from climatic conditions combined with the physical constitution of the patient; when excess and deficiency interact, severe diseases develop."

Professor Zhang Xiaoqi and colleagues summarized research and found that ancient physicians held the core pathogenesis of lung cancer to be insufficient healthy qi compounded by external pathogenic invasion, which generates internal pathogenic toxins. When healthy qi is depleted, the body's resistance against external pathogens declines. Six climatic pathogenic factors (cold, heat, dryness, dampness, etc.) or epidemic toxins easily invade the body and stagnate in the lung, laying the groundwork for lung cancer development. For instance, long-term overexertion, irregular diet, emotional disharmony and other factors consume healthy qi, impairing the lung's normal exterior-defending function.

In establishing therapeutic principles, clinicians may invigorate the spleen and eliminate dampness to consolidate the earth element, or employ sweet-warm and cool-moist therapies to promote fluid production. In short, invigorating the spleen and stomach to reinforce the root origin is the core of strengthening healthy qi. As demonstrated in research by Professor Dong Chunhua and colleagues, traditional Chinese medicinal dietary conditioning exerts remarkable effects in raising body weight, BMI and serum prealbumin levels in lung cancer patients, while lowering the incidence of severe malnutrition.

2.2 Invasion of External Pathogens

The lung is known as the canopy zang-organ, governing qi and respiration, opening into the nose, and communicating directly with the external environment, making it vulnerable to invasion by external pathogenic factors. The six climatic pathogenic factors recorded in Huangdi Neijing—wind, cold, summer-heat, dampness, dryness and fire—are all capable of attacking the lung. Among them, Professor Pang Dacheng's research on classical medical texts reveals a close correlation between lung cancer and cold pathogenic factors.

For example, Spiritual Pivot · On the Origins of All Diseases states: "Masses originate from cold; cold qi reversal leads to

the formation of masses.” This statement identifies cold pathogen as a core contributor to tumor formation. Classic of Difficult Issues · Question 55 records: “Masses pertain to yin. They arise at a fixed location, with pain confined to that site, having clear boundaries vertically and horizontally.” Consistent with the theories of the Internal Classic, this text indicates that tumors are generated by yin-cold pathogenic factors and are yin in nature.

2.3 Emotional Factors

Emotions are interrelated with the five zang-organs, and the lung corresponds to worry in emotional manifestations. Persistent negative emotions such as chronic sorrow, anxiety and depression hinder the dispersion and free flow of lung qi, resulting in qi stagnation.

Huangdi Neijing holds that emotional disharmony disrupts visceral functions and the circulation of qi and blood. As recorded in Spiritual Pivot · Root of Spirit, “Sorrow and worry block qi and render it stagnant and unflowing.” Stagnated lung qi disturbs the transportation and distribution of body fluid, which accumulates to form phlegm. The struggle between stagnant qi and phlegm over time may induce lung cancer.

Professor Li Da Wu summarized that emotional imbalance and malnourishment of the heart spirit give rise to disordered qi movement, visceral impairment, and subsequent mass formation. Once lung masses develop, patients suffer from persistent cough, dyspnea, chest pain and hemoptysis, which further aggravate emotional depression. This creates a vicious cycle: physical illness triggers mental distress, and mental distress in turn worsens physical ailments.

3. Exploration of Lung Cancer Pathogenesis Based on Huangdi Neijing

3.1 Dysfunction of Zang-Fu Organs

The onset of lung cancer is associated with dysfunction of multiple zang-organs. The lung is the primary disease location of lung cancer, and the initiation and progression of lung cancer are directly linked to the physiological functions and pathological changes of the lung, such as inhibited dispersion of lung qi and consumption of lung yin. Meanwhile, this disease is closely related to the spleen, kidney and other zang-organs.

The spleen is the source of phlegm. It governs the transportation and transformation of food nutrients as well as body fluids. Therefore, spleen qi deficiency leads to impaired transport function, internal retention of dampness, accumulation into phlegm, and upward storage of phlegm in the lung, which interacts mutually with stagnated lung qi.

The kidney governs qi reception. Kidney deficiency fails to anchor qi to its origin, resulting in upward counterflow of lung qi. Furthermore, kidney yin and kidney yang serve as the root of human yin and yang. Kidney deficiency causes imbalance between yin and yang, disrupting the normal physiological functions of the lung.

As recorded in Plain Questions · Treatise on the Genuine Visceral Manifestations in Jade Mechanism: “The five zang-organs are interconnected, and pathological transmissions follow a definite order. When one zang-organ suffers disease, the pathogen will transmit to the organ it conquers.” This statement reflects the rule of visceral pathological transmission during the development of lung cancer.

3.2 Disorder of Meridians and Collaterals

The lung converges all blood vessels. Among the five zang-organs, the lung has the closest connections with meridians, collaterals and muscle tendons. As the lung is known as a “delicate zang-organ”, it readily bears pathogenic damages on behalf of other zang-organs. The lung connects with the skin and hair and maintains intimate links with the twelve cutaneous regions; consequently, pathological changes in any of the twelve cutaneous regions can invade the lung, which partially explains why the incidence of lung cancer is higher than tumors of other zang-organs.

Spiritual Pivot · Divergent Meridians states: “The twelve meridians are the foundation sustaining human life and the medium where diseases develop.” Meridians transport qi and blood, propelling nutrient qi and defensive qi to circulate throughout the whole body. Defensive qi fills the collaterals, and collaterals spread all over the cutaneous regions. Blockage of meridians and collaterals weakens the defensive qi’s capacity to resist pathogens, rendering the body susceptible to pathogenic invasion and illness. The collateral disease theory holds that collateral lesions run through all pathological stages of tumorigenesis, progression and metastasis.

In summary, based on the holistic view of zang-fu organs and meridians in Huangdi Neijing, complex physiological and pathological mechanisms underlying lung cancer manifestations are elaborated, laying a theoretical foundation for the in-depth understanding and treatment of lung cancer in traditional Chinese medicine.

3.3 Binding of Phlegm and Blood Stasis

Although Huangdi Neijing does not directly mention that the intermingling of phlegm and blood stasis induces cancer, it contains numerous discussions on diseases caused by phlegm-fluid and blood stasis. Impaired dispersion and descent of lung qi disrupt the normal transformation of body fluids, which then accumulate into phlegm; unsmooth qi movement slows blood circulation and leads to blood stasis. Phlegm and stasis bind tightly together, obstructing the lung collaterals and eventually forming masses over time.

Professors Li Xiaobin and colleagues argue that the essential pathology of lung cancer falls under the pattern of root deficiency and excess branch. The root cause lies in deficient healthy qi and accumulated tumor toxins in the lung, while the branch manifestations stem from the mutual interaction of phlegm and blood stasis. As recorded in Spiritual Pivot · On the Origins of All Diseases: “Coagulated blood accumulates internally without dispersion; body fluids ooze sluggishly and lodge persistently, thus all masses take shape.” This passage

vividly depicts the process of tumor formation resulting from accumulated phlegm and blood stasis.

3.4 Imbalance of Yin and Yang

The theory of yin-yang runs through the entire Huangdi Neijing. Professor Luo Anming holds that the pathogenesis of cancer lies in unconsolidated yang failing to secure yin. Lung cancer patients present prominent yin-yang imbalance, such as concurrent lung yin depletion and exuberant lung heat, or kidney yang deficiency accompanied by insufficient warming of the lung. Excess or deficiency of yin and yang disturbs physiological functions of the lung and the whole body, facilitating tumor growth and progression.

The statement from Plain Questions · Treatise on Regulating Meridians — “Yang deficiency generates external cold; yin deficiency produces internal heat; excessive yang brings external heat; excessive yin leads to internal cold” — lays a theoretical foundation for analyzing yin-yang pathogenesis of lung cancer. In the early stage, the pathogenesis is predominantly yang deficiency and qi deficiency; the middle stage is mainly marked by yin deficiency. Nevertheless, pathological factors including phlegm, blood stasis and pathogenic toxins have been increasingly emphasized in relevant research over the past two decades.

4. Descriptions of Lung Cancer-Related Symptoms in Huangdi Neijing

Though Huangdi Neijing does not name lung cancer explicitly, it records multiple relevant symptoms. Plain Questions · Treatise on Cough records: “Symptoms of lung cough include cough with wheezing and audible rales, and in severe cases, hemoptysis.” The cough and wheezing described correspond to common cough and dyspnea in lung cancer patients, while hemoptysis matches hemoptysis manifestations in advanced lung cancer.

Spiritual Pivot · Treatise on Needling and True Qi states: “Where qi accumulates, body fluids linger; pathogenic factors invade, and stagnation worsens day by day, gathering to form solid tumors hard to palpate.” This description analogizes the fixed, hard palpable masses of lung cancer, indicating the pathological process of tumor formation caused by lingering pathogens and condensed qi, blood and body fluids in the lung.

Moreover, lung cancer patients often present systemic symptoms such as emaciation and fatigue, consistent with the TCM theory that chronic diseases consume healthy qi and blood leading to physical exhaustion recorded in Huangdi Neijing. Descriptions such as “atrophy of major bones and wasting of major muscles” reflect extreme physical debilitation in late-stage severe diseases, serving as theoretical origin for systemic manifestations of advanced lung cancer.

5. Enlightenments of Huangdi Neijing on Syndrome Differentiation and Treatment of Lung Cancer

5.1 Treatment Based on Differentiation of Deficiency and Excess

Guided by the deficiency-excess theory of Huangdi Neijing, lung cancer can be categorized into excess syndromes and deficiency syndromes. Excess syndromes are mainly caused by obstruction of lung collaterals by external pathogens, turbid phlegm and blood stasis, treated with pathogen elimination therapies such as dispersing the lung and resolving phlegm, activating blood circulation to dissipate stasis, clearing heat and detoxifying. For example, patients with lung cancer marked by abundant phlegm-heat can be treated with Qingjin Huatan Decoction to clear heat, resolve phlegm, disperse the lung and relieve cough.

Deficiency syndromes center on insufficient healthy qi, requiring treatment to consolidate the root by supporting healthy qi, including tonifying the lung and replenishing qi, nourishing yin and moistening the lung, and tonifying the kidney to receive qi. For patients with lung-spleen qi deficiency, Liu junzi Decoction can be applied to tonify the spleen and lung and generate metal via earth.

5.2 Regulating Functions of Zang-Fu Organs

Based on the correlation between lung cancer and visceral dysfunction, treatment focuses on regulating the functions of the involved zang-fu organs. For patients with inhibited dispersion and descent of lung qi, the primary therapeutic target is to restore the lung's dispersing and descending functions, with commonly used lung-diffusing and anti-asthmatic herbs such as Ephedrae Herba and Armeniacae Semen Amarum.

For impaired transportation of the spleen, the method of invigorating the spleen and draining dampness is adopted, represented by herbs including Poria Cocos and Atractylodis Macrocephalae Rhizoma. For kidney deficiency patients, differentiated therapies are applied corresponding to yin or yang insufficiency: Cinnamomi Ramulus and Aconiti Radix Lateralis Preparata are used to tonify kidney yang, while Rehmanniae Radix Preparata and Dioscoreae Rhizoma nourish kidney yin. Such interventions aim to harmonize and balance the physiological functions of the lung and other zang-fu organs.

5.3 Harmonizing Qi, Blood, Yin and Yang

Treatment follows the principle of yin-yang balance to harmonize disrupted qi, blood, yin and yang in lung cancer patients. For internal heat due to yin deficiency, herbs such as adenophora tetraphylla, ophiopogon japonicus and polygonatum odoratum are used to nourish yin and clear heat and restore yin-yang balance. For depleted yang, warming herbs such as aconite and dried ginger are applied to invigorate yang and dispel cold.

Lung cancer is a consumptive disease, and advanced patients often develop cachexia. Combined with clinical interventions, patients already suffer severe deficiency of qi and blood. Insufficient healthy qi constitutes the primary contradiction throughout the onset, progression, metastasis and recurrence of lung cancer; therefore, supporting healthy qi should run

through the entire treatment process.

In regulating qi, physicians focus on smoothing stagnated qi movement using bupleurum and aurantii fructus to adjust ascending, descending, exiting and entering of lung qi. In regulating blood circulation, herbs with different intensities of blood activation such as salvia miltiorrhiza and persica seed are selected according to the severity of blood stasis to promote smooth circulation of qi and blood, improve physical conditions and elevate patients' quality of life.

6. Prevention and Health Preservation for Lung Cancer Inspired by Huangdi Neijing

6.1 Conforming to Four Seasons

Huangdi Neijing emphasizes the correlation between health preservation and seasonal changes. Lung cancer prevention requires compliance with seasonal rhythms. In spring when yang qi ascends, people should sleep early and rise early, engage in more outdoor activities to stretch lung qi. In summer with abundant yang qi, people should sleep late and rise early, maintain stable emotions and avoid anger to disperse yang qi and soothe the mind. Autumn is dry and convergent; people should sleep early and rise early, keep calm and free from irritability to converge mental vitality in accordance with autumn's convergent qi. Violation of this rule injures the lung and predisposes people to winter diseases. Winter is a season of latent vitality and hibernation; people should sleep early and rise late after sunrise, avoid cold, keep warm, limit overstrain and excessive sweating to store yang qi; violation damages the kidney.

As recorded in Plain Questions · Treatise on Regulating the Four Seasons and Nourishing Spirit: "Yin and yang of the four seasons are the fundamental root of all living things. Therefore, sages nourish yang in spring and summer, and nourish yin in autumn and winter to follow this root."

6.2 Emotional Regulation

Maintaining positive emotions is critical for lung cancer prevention. Long-term sorrow, anxiety and other negative emotions should be avoided; patients can regulate emotions through meditation, music, calligraphy and other methods to unobstruct lung qi and harmonize qi and blood. This aligns with the health preservation concept in Huangdi Neijing: "Maintain a tranquil and empty mind, genuine qi follows smoothly, and the spirit is internally guarded—how can diseases occur?"

6.3 Moderate Diet

A balanced diet contributes to lung cancer prevention. Huangdi Neijing proposes the dietary principle: "Five kinds of grains serve as staple nourishment, five kinds of fruits assist nutrition, five kinds of meats provide tonification, five kinds of vegetables supplement intake." Daily diet should be diverse and balanced; excessive spicy, greasy and stimulating foods, tobacco and alcohol should be avoided to reduce lung injury. More lung-moistening, phlegm-resolving and spleen-tonifying foods such as pears, loquats and chinese yams are recommended.

6.4 Moderate Physical Exercise

Huangdi Neijing records numerous descriptions of moderate exercise. The text notes that in spring, people should walk widely in courtyards with loose hair and relaxed clothing to nurture generated yang qi. It also stresses "avoiding excessive strain", requiring moderation in both mental and physical labor. Gentle, low-intensity sustainable exercises are recommended, such as mountain climbing, table tennis, badminton, Tai Chi and Baduanjin. These activities avoid excessive fluid consumption through heavy sweating while stretching tendons and bones and strengthening physical constitution. Tai Chi features slow, soft movements coordinated with breath regulation, which enhances cardiopulmonary function and promotes qi-blood circulation to reinforce healthy qi.

7. Conclusion

The theories of Huangdi Neijing provide a comprehensive and systematic guidance system for lung cancer diagnosis and treatment. Its discussions cover all dimensions: etiology including insufficient healthy qi, external pathogen invasion and emotional factors; pathogenesis including visceral dysfunction, binding of phlegm and blood stasis, and yin-yang imbalance; relevant descriptions of clinical symptoms; syndrome differentiation and treatment strategies such as distinguishing deficiency-excess, regulating visceral functions, harmonizing qi-blood and yin-yang; as well as health preservation and prevention methods including conforming to four seasons, emotional regulation, moderate diet and proper exercise. All these lay a solid theoretical foundation for TCM clinical practice on lung cancer.

In-depth excavation and flexible application of connotations of Huangdi Neijing in lung cancer treatment and prevention are expected to further improve TCM therapeutic efficacy for lung cancer, open new pathways to elevate lung cancer patients' quality of life and long-term prognosis, and demonstrate the unique value and charm of traditional TCM theories in modern oncology. Nevertheless, clinical application must integrate modern medical research findings and clinical experience to continuously refine the lung cancer diagnosis and treatment system guided by Huangdi Neijing theories, so as to deliver better clinical services for patients.

References

- [1] WANG Baoqin, HUA Wenshan, YANG Min. Study on TCM Syndrome Differentiation of Lung Cancer in Recent 20 Years[J]. Journal of Guiding TCM, 2024, 30(10):103-106.
- [2] ZHANG Xiaqi, LIU Chengyong, ZHU Jia, WANG Qian. Research Progress on Traditional Chinese Medicine Diagnosis and Treatment of Lung Cancer[J]. Journal of Practical TCM Internal Medicine, 1-11 [2024-11-25]. <http://kns.cnki.net/kcms/detail/21.1187.R.20241022.1303.002.html>.
- [3] DONG Chunhua, HE Ting. Effects of Traditional Chinese Medicine Dietary on the Nutritional Status of Lung Cancer Patients[J]. Journal of Hubei University of Science and Technology (Medical Sciences), 2024, 38(04): 351-354.

- [4] PANG Dacheng, ZHANG Shuo, TIAN Tian, WANG Tong. Traditional Chinese Medicine Pathogenesis of the Formation and Metastasis of Lung Cancer Based on the Theory of "Yang Transforming Qi and Yin Constituting Form" [J]. World Journal of Traditional Chinese Medicine, 2023, 18(19):2772-2776.
- [5] Li Daowu. Clinical A Study on Clinical Experience in Treating Lung Cancer Based on the Method Of "Reinforcing Vital Qi to Eliminate Pathogenic Factors and Treating Both Mind and Body" [J]. Journal of Chinese Medical Literature, 2026, 44(2): 50-52.
- [6] Liang Fang, Sun Jianli, Sun Xiyuan. Professor Liu Jiaxiang's Experience in Treating Lung Cancer by Zang-Fu Syndrome Differentiation[J]. Journal of Practical Traditional Chinese Internal Medicine, 2006, (2): 130-131.
- [7] Wang Xiongwen, Zhou Daihan. Etiology of Lung Cancer and Its Mechanism Based on Visceral Manifestations and Meridians[J]. Lishizhen Medicine and Materia Medica Research, 2009, 20(10): 2641-2642.
- [8] Wang Li, Yuan Shanghua, Lian Yanjie, et al. Guiding role of holistic view of traditional Chinese medicine in cancer prevention[J]. JOURNAL OF BASIC CHINESE MEDICINE, 2019, 25(11): 1513-1514, 1517.
- [9] Li Xiaobin, Li Xiangyu, Wang Wenping. Professor Wang Experience of Wang Wenping in Treating Lung Cancer from Phlegm and Blood Stasis[J]. Chinese Journal of Library and Information Science for Traditional Chinese Medicine, 2024, 48(4): 218-220.
- [10] Luo Anming. Analysis of Pathogenesis and Treatment of Cancer Based on an Idea in Huangdi Neijing That Only When Yang Is Compact Can It Consolidate Yin Essence[J]. New Chinese Medicine, 2022, 54(6): 228-231.
- [11] Ni Lulu, Li Yan. Neijing Theory in Prevention and Treatment of Lung Cancer[J]. Liaoning Journal of Traditional Chinese Medicine, 2013, 40(8): 1572-1573.
- [12] Xu Yan, Kong Yibu, Han Jing, et al. Mechanism of Mahuang (Ephedrae Herba) in Treatment of Pneumonia Based on Network Pharmacology[J]. Chinese Archives of Traditional Chinese Medicine, 2021, 39(1): 66-72+274-275.
- [13] Zhuyang Zhuangzhuang, Dong Wenxin, Zou Chunpu, et al. Internal immune mechanism of psoriasis and lung cancer comorbidity based on the theory of 'lung governing skin and body hair' [J]. China Journal of Traditional Chinese Medicine and Pharmacy, 2022, 37(05): 2813-2819.
- [14] Zhang J, Ma Y L, Geng L M, et al. Mechanism of Ephedrae Herba-Armeniacae Semen Amarum-Perillae Fructus Triple Herb Pair for Treating Chronic Obstructive Pulmonary Disease and Bronchial Asthma via the Principle of Treating Different Diseases with the Same Therapy Based on Network Pharmacology[J/OL]. Journal of Integrated Traditional Chinese and Western Medicine on Chronic Diseases, 1-17 [2026-07-18]. <https://link.cnki.net/urlid/21.1621.R.20260331.1908.004>.
- [15] Bai C C, Li X Y, Zhang X K. Discussion on Guizhi Decoction Removing Cinnamon Twig plus Poria and Largehead Atractylodes Rhizome Decoction Based on the Theory of "Activating Yang Is Not in Warming, but in Promoting Urination" [J/OL]. Acta Chinese Medicine, 1-7 [2026-07-18]. <https://link.cnki.net/urlid/41.1411.R.20251119.1603.002>.
- [16] Zhao Shuang, Hao Wenjie. Learning Four-Season Health Preservation from Huangdi Neijing (Huangdi's Internal Classic) [J]. Traditional Chinese Medicine Health Maintenance, 2026, 12(1): 79-81.