Lee *et al.*
Innovations in Acupuncture and Medicine (2025) 18:2
https://doi.org/10.1186/s44424-025-00001-7

Journal of Acupuncture and Meridian Studies

STUDY PROTOCOL

Open Access

The Effectiveness and Safety of Integrative Traditional Asian Medicine Therapy in Lung Cancer Patients Undergoing Cancer Standard Treatment: A Protocol for Systematic Review and Meta-analysis

Keon-Jun Lee[1,2†], Dong-Hyeon Kim[1†], Sang-Won Shin[3], Mi-Sun Park[3], Jong-Ha Kwon[3] and So-Jung Park[1,3*]

Abstract

Background Lung cancer remains one of the leading causes of cancer-related mortality worldwide, significantly impacting patient quality of life. Integrating Traditional Asian Medicine (TAM), such as acupuncture and herbal medicine, with standard cancer treatments may offer additional therapeutic benefits by improving efficacy and reducing adverse effects. However, the clinical evidence supporting this approach is inconsistent, necessitating a systematic evaluation.

Methods This study protocol outlines a systematic review and meta-analysis to evaluate the effectiveness and safety of TAM as an adjunctive therapy for lung cancer patients undergoing standard treatments. Eligible studies include randomized controlled trials published in English, Korean, or Chinese up to June 2024. Data will be extracted from domestic and international databases, including PubMed, EMBASE, and KMBASE. Primary outcomes will assess tumor response using RECIST criteria, while secondary outcomes include survival rates, quality of life, and adverse effects. Statistical heterogeneity will guide the choice of fixed- or random-effects models during meta-analysis.

Discussion This protocol aims to generate high-quality evidence supporting the integration of TAM in lung cancer care. Findings from this review may contribute to the development of clinical practice guidelines, enhancing patient outcomes and informing future research in integrative oncology.

Trial Registration This study has been registered in PROSPERO with the registration number CRD42024523418 on March 22, 2024.

Keywords Lung cancer, Traditional Asian Medicine, Systematic review, Meta-analysis, Integrative oncology, Acupuncture, Herbal medicine

†Keon-Jun Lee and Dong-Hyeon Kim have contributed equally to this work.

*Correspondence:
So-Jung Park
vivies@hanmail.net
Full list of author information is available at the end of the article

1 Background

Lung cancer is the most common malignancy worldwide, in terms of incidence and mortality [1]. It is primarily classified into two types based on its histological characteristics: non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC), accounting for approximately 85% and 15% [2] of all lung cancer cases, respectively. This division is more than just a technical distinction; It guides the treatment approach, as each cancer type demonstrates varied behaviors and responses to therapy.

NSCLC includes various subtypes, such as adenocarcinoma, squamous cell carcinoma, and large cell carcinoma. These subtypes are linked to smoking habits, but each necessitates unique treatment methods. Adenocarcinoma, common among both smokers and non-smokers, often benefits from targeted therapies aimed at specific genetic mutations, notably, EGFR-TKIs and ALK inhibitors, which have been shown to offer a favorable prognosis in numerous studies compared to squamous cell carcinoma [3, 4]. In contrast, squamous cell and large cell carcinomas typically benefit from a combination of chemotherapy, targeted therapy, and/or immunotherapy, depending on the specific case. The NSCLC treatment strategy has shifted towards personalized care, aiming to manage disease progression, reduce symptoms, and improve the quality of life [5]. This customized approach can involve surgical resection, with the inclusion of newer agents, such as gemcitabine, vinorelbine, and paclitaxel, as well as platinum-based third-generation chemotherapy, highlighting the progress in tailored NSCLC therapy [6].

SCLC, which primarily affects smokers [7], is known for its rapid spread and aggressive nature compared to NSCLC [8–11]. Patients with SCLC tend to have lower survival rates and limited treatment options. It is categorized into limited and extensive stages. The categorization guides a streamlined treatment approach that focuses on chemotherapy and radiation. This highlights the necessity for enhanced treatment strategies and early detection to better manage SCLC challenges.

Integrating Traditional Asian Medicine (TAM) with conventional Western medical treatment methods offers potential benefits to patients with lung cancer by enhancing treatment efficacy and reducing side effects [12–14]. To optimize integrated cancer care, the efficacy and safety of postoperative TAM therapy must be stringently evaluated. Further research in this area is warranted.

2 Methods

2.1 Study Registration

This protocol has been registered in PROSPERO (CRD42024523418) and will adhere to the Preferred Reporting Items for Systematic Reviews and Meta-analysis [15].

2.2 Inclusion Criteria

2.2.1 Study Types

2.2.1.1 Selection Criteria Randomized controlled trials (RCTs) assessing the effectiveness and safety of acupuncture and herbal medicine in the management of lung cancer will be included. Documents written in Korean, Chinese, or English will be included.

2.2.1.2 Exclusion Criteria All cases in which the study will be designed with non-human animal subjects, preclinical studies, case studies without a control group during clinical studies, observational research, and crossover designs, will be excluded.

2.2.2 Patient Types

Individuals with early-, advanced-, and late-stage lung cancer will be included. Patients with lung cancer with no specific cause will also be included.

2.2.3 Intervention and Comparison Types

Patients in the treatment group will receive a combination of chemotherapy and TAM (acupuncture, electroacupuncture, acupressure, auricular acupuncture, herbal medicine, rehabilitation [e.g., TAM breathing exercises]) or TAM alone after surgery. Studies in which TAM treatment will not be included as an intervention in the treatment groups will be excluded. The control group will be based on studies that use no treatment, conventional Western medicine alone, or a placebo without the use of TAM.

2.3 Outcome Measures

The main outcome to be measured will be tumor response, assessed using the Response Evaluation Criteria in Solid Tumors (RECIST). The anti-cancer effects will be evaluated using relevant tools. Secondary outcomes will include survival (overall survival (OS), 5-year survival, progression-free survival (PFS)), quality of life (QLQ-C30, FACT-L, KPS, sleep quality scale), symptoms and pain (VAS and NRS), respiratory symptoms (pulmonary function), and adverse effects of anti-cancer drugs (CTCAE5.0), assessed using appropriate tools.

2.4 Search Strategy

The domestic web databases OASIS, ScienceON, KISS, RISS, and KMBASE, and overseas web databases PubMed, EMBASE, Cochrane Library, CNKI, Wanfang, and CiNii will be searched for their comprehensive coverage of both conventional and TAM studies. The search will cover the period from the inception of the databases up

Table 1 Search strategy (herbal medicine)

Number	Search terms	Search result
#1	"lung neoplasms"[MeSH Terms]	
#2	"carcinoma, non-small-cell lung"[MeSH Terms]	
#3	"Lung"[Title/Abstract]	
#4	"cancer*"[Title/Abstract] OR "tumor"[Title/Abstract] OR "carcinoma"[Title/Abstract] OR "neoplasm*"[Title/Abstract]	
#5	#3 AND #4	
#6	#1 OR #2 OR #5	
#7	"Herbal Medicine"[MeSH Terms]	
#8	"drugs, Chinese herbal"[MeSH Terms]	
#9	"medicine, traditional"[MeSH Terms]	
#10	"medicine, Korean traditional"[MeSH Terms]	
#11	"medicine, Chinese traditional"[MeSH Terms]	
#12	"Herbal Medicine"[Title/Abstract] OR "herb*"[Title/Abstract] OR "prescription"[Title/Abstract] OR "decoction"[Title/Abstract] OR "tang"[Title/Abstract] OR "capsule"[Title/Abstract] OR "powder"[Title/Abstract] OR "botanic*"[Title/Abstract]	
#13	#7 OR #8 OR #9 OR #10 OR #11 OR #12	
#14	"randomized controlled trial"[Publication Type]	
#15	"controlled clinical trial"[Publication Type]	
#16	"randomized"[Title/Abstract]	
#17	"RCT"[Title/Abstract]	
#18	"random*"[Title/Abstract] AND "allocat*"[Title/Abstract]	
#19	"random*"[Title/Abstract] AND "assign*"[Title/Abstract]	
#20	#14 OR #15 OR #16 OR #17 OR #18 OR #19	
#21	#6 AND #13 AND #20	

Table 2 Search strategy (acupuncture)

Number	Search terms	Search result
#1	"lung neoplasms"[MeSH Terms]	
#2	"carcinoma, non-small-cell lung"[MeSH Terms]	
#3	"Lung"[Title/Abstract]	
#4	"cancer*"[Title/Abstract] OR "tumor"[Title/Abstract] OR "carcinoma"[Title/Abstract] OR "neoplasm*"[Title/Abstract]	
#5	#3 AND #4	
#6	#1 OR #2 OR #5	
#7	"acupuncture"[MeSH Terms] OR "acupuncture therapy"[MeSH Terms]	
#8	"auriculotherapy"[MeSH Terms]	
#9	"acupuncture"[Title/Abstract] OR "auriculotherapy"[Title/Abstract] OR "electroacupuncture"[Title/Abstract] OR "electro-acupuncture"[Title/Abstract]	
#10	#7 OR #8 OR #9	
#11	"randomized controlled trial"[Publication Type]	
#12	"controlled clinical trial"[Publication Type]	
#13	"randomized"[Title/Abstract]	
#14	"RCT"[Title/Abstract]	
#15	"random*"[Title/Abstract] AND "allocat*"[Title/Abstract]	
#16	"random*"[Title/Abstract] AND "assign*"[Title/Abstract]	
#17	#12 OR #13 OR #14 OR #15 OR #16	
#18	#6 AND #10 AND #17	

to June 2024. Tables 1, 2, 3 will show the search strategy for the PubMed database, which will be applied to the corresponding databases. This study will focus only on the aforementioned electronic searches, which have been selected to comprehensively cover both conventional and integrative oncology research (Tables 1, 2, 3).

2.5 Study Selection and Data Collection

2.5.1 Study Selection Process

Two researchers will conduct the searches following the research criteria and strategies and manage the references using the Endnote version 20 program [16]. Two researchers will independently evaluate the titles and abstracts of the selected studies. The selected eligible studies will be read in full for further evaluation. The selection outcomes will be verified by two reviewers. Any disagreements will be resolved by discussion until a consensus is reached. If further deliberation is necessary, it will be addressed by a third reviewer. Studies will be excluded for several reasons. The selection process will be illustrated (Fig. 1).

2.6 Data Extraction

Data will be extracted by two independent researchers. The extracted data will include the first author, year of study publication, study period, participants, comparison, interventions in the treatment and control groups, outcomes, and adverse events. We will review survival rate, quality of life, tumor response, and blood test data. For studies with missing data, the team will discuss the relevance, and the first/corresponding author will be contacted via email for clarification as necessary.

2.7 Assessment of Risk of *Bias*

Cochrane's Risk of Bias (ROB) will be used to assess the selected literature data [17]. The evaluation of trial bias risk will cover 7 aspects: allocation concealment, random sequence generation, blinding of participants and personnel, blinding of outcome assessment, selective reporting, incomplete outcome data, and other biases. The evaluation will be conducted by selecting one of three responses: "Low risk," "High risk," or "Unclear risk". Strategies for addressing and documenting these biases will be explicitly outlined. Two reviewers will input the data into RevMan software.

2.8 Data Synthesis

All data will be generated using Review Manager Software 5.4. The efficacy data will be classified based on patient characteristics, treatment, control, and outcome assessments. Data will be synthesized and examined based on the degree of statistical heterogeneity. If heterogeneity tests show minimal or no statistical heterogeneity ($I^2 \leq 50\%$), a fixed-effects model will be used to pool the data, ensuring precision in the summary estimates. On the other hand, for significant heterogeneity ($I^2 > 50\%$), a random-effects model will be adopted to account for variability among studies. In cases of extreme heterogeneity that cannot be resolved through subgroup or sensitivity analyses, meta-analyses will not be performed to avoid misleading conclusions. Instead, a narrative synthesis may be considered to describe the findings qualitatively.

Table 3 Search strategy (rehabilitation)

Number	Search terms	Search result
#1	"lung neoplasms"[MeSH Terms]	
#2	"carcinoma, non-small-cell lung"[MeSH Terms]	
#3	"Lung"[Title/Abstract]	
#4	"cancer*"[Title/Abstract] OR "tumor"[Title/Abstract] OR "carcinoma"[Title/Abstract] OR "neoplasm*"[Title/Abstract]	
#5	#3 AND #4	
#6	#1 OR #2 OR #5	
#7	"pulmonary rehabilitation"[Title/Abstract] OR "respiratory rehabilitation"[Title/Abstract] OR "lung rehabilitation"[Title/Abstract]	
#8	"randomized controlled trial"[Publication Type]	
#9	"controlled clinical trial"[Publication Type]	
#10	"randomized"[Title/Abstract]	
#11	"RCT"[Title/Abstract]	
#12	"random*"[Title/Abstract] AND "allocat*"[Title/Abstract]	
#13	"random*"[Title/Abstract] AND "assign*"[Title/Abstract]	
#14	#8 OR #9 OR #10 OR #11 OR #12 OR #13	
#15	#6 AND #7 AND #14	

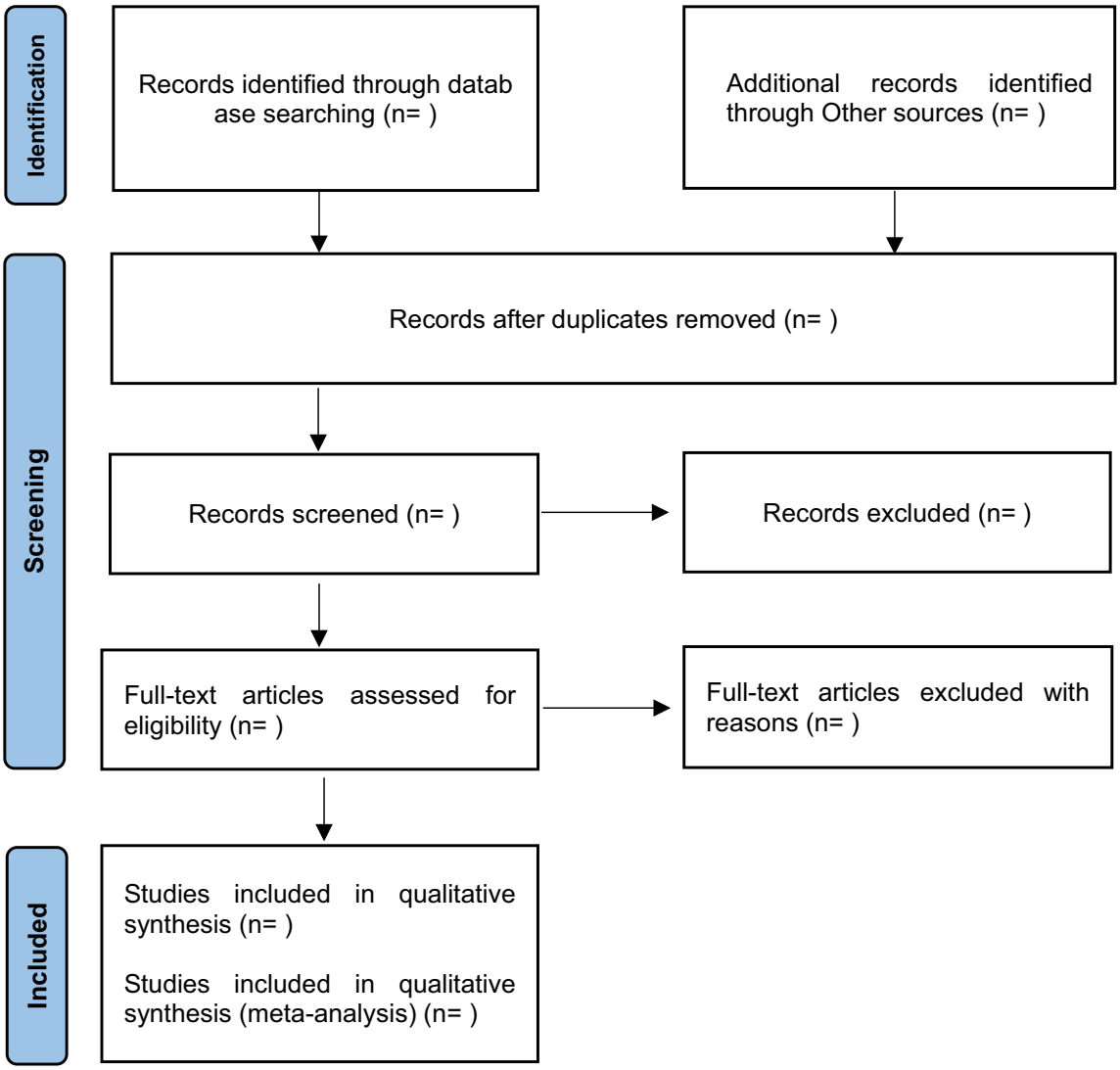

Fig. 1 PRISMA flowchart

2.9 Measurement of Treatment Effect

In this study, the risk ratio (RR) accompanied by a 95% confidence interval (CI) will be employed to evaluate dichotomous data. For continuous data, the mean difference (MD) with a 95% CI will be used to measure treatment outcomes on the same scale. Standard mean differences (SMD) will be utilized to evaluate treatment outcomes across various scales.

2.9.1 Unit of Analysis Issue

Before the statistical analysis, the units of each outcome from the various trials will be standardized to the International System of Units.

2.9.2 Managing Missing Data

The reviewers will contact the first/ corresponding authors to obtain any missing data. The studies will be excluded if necessary data cannot be obtained.

2.9.3 Assessment of Heterogeneity

Heterogeneity will be calculated using Higgins I^2. If the study heterogeneity is less than $P = 0.05$ and the I^2 is less than 50%, it will be determined that there is no heterogeneity between the studies, and the fixed-effect model will be used for meta-analysis. If I^2 exceeds 50%, heterogeneity will be determined and the random-effects model will be applied.

2.9.4 Assessment of Reporting Bias

A funnel plot will be employed to identify reporting bias in cases where more than ten studies are involved.

2.10 Sensitivity Analysis

Sensitivity analysis will be conducted to evaluate the reliability of the principal decisions taken during the review process. Factors including small studies, methodological issues, and incomplete data will be assessed throughout the systematic review to facilitate sensitivity analysis.

2.11 Assessment of Evidence Reliability

Two researchers will employ the Grading of Recommendations, Assessment, Development, and Evaluation framework to assess the quality of the evidence. The evaluation of evidence quality will be based on five factors: study design, literature quality, volume of evidence, consistency of evidence, and directness of evidence. These will be categorized as high, moderate, low, or very low quality [18].

2.12 Ethical Considerations and Dissemination

Ethical approval is not required for this systematic review and meta-analysis, as it involves no primary data collection or direct patient interventions, but it adheres to high ethical standards in the reporting and handling of data from studies with their ethical clearances. The findings will be disseminated through publication in a peer-reviewed medical journal, presentations at academic conferences relevant to oncology and traditional medicine, distribution via professional networks and societies, and online platforms to ensure wide accessibility and impact in the medical and scientific community.

3 Discussion

In 2020, lung cancer was the second most commonly diagnosed cancer and the leading cause of cancer-related deaths, representing approximately one in 10 (11.4%) diagnosed cancers and one in 5 (18.0%) deaths. Lung cancer continues to be the leading cause of cancer morbidity and mortality in men. In contrast, among women, lung cancer ranks third in incidence, after breast and colorectal cancer, and second in mortality after breast cancer [19]. Although the efficacy of third-generation anticarcinogens combined with platinum-based agents has shown improvement in the treatment of NSCLC and SCLC, the therapeutic benefits of these seem to have plateaued, and in some cases, may offer limited improvement. The combined application of Asian medicine and standard cancer treatment may enhance efficacy and reduce adverse effects in these patients.

Treatment of lung cancer often involves a range of chemotherapeutic drugs, each with a distinct mechanism of action and specific indications. The following are some of the primary chemotherapy agents used in the management of lung cancer: gemcitabine, cisplatin (GC), paclitaxel, cisplatin (PC), docetaxel, cisplatin (DC), vinorelbine, cisplatin (VC), and others. Platinum-based drugs, such as cisplatin and carboplatin, serve as cornerstone agents in lung cancer chemotherapy. These agents work by inducing DNA damage, leading to apoptosis or cell death. They are frequently used in combination with other chemotherapy drugs to enhance therapeutic efficacy. Taxanes, including paclitaxel (Taxol) and docetaxel (Taxotere), are a critical class of chemotherapeutic agents. Their mechanism involves the disruption of microtubule function, crucial for cell division, which impedes cancer cell proliferation, thereby impeding tumor growth. Pemetrexed (Alimta), an antimetabolite, is effective against NSCLC because it mimics the natural substrates of metabolic pathways and interferes with DNA and RNA synthesis, which are vital for cancer cell growth and survival. Topoisomerase inhibitors, such as etoposide and irinotecan, are predominantly used to treat SCLC by inhibiting topoisomerase enzymes and preventing DNA replication and transcription, which are essential for cancer cell proliferation. Gemcitabine (Gemzar) is primarily used to treat NSCLC. Its mechanism of action involves inhibition of DNA synthesis, leading to the cessation of cancer cell growth and replication. Vinca alkaloids, such as vinorelbine (navelbine), target the division of cancer cells by inhibiting the assembly of microtubules, thereby obstructing mitosis and leading to cell death.

Insights from traditional Chinese medicine theories have provided an understanding of the pathogenesis [20], diagnosis [21, 22], metastasis [23], prevention [24], and treatment [25] of lung cancers. These insights serve as a foundation for the widespread application of herbal medicines. The integration of TAM and acupuncture with standard chemotherapy protocols for lung cancer can lead to significant improvements in patient outcomes, specifically reductions in chemotherapy-induced leukopenia, thrombocytopenia, and anemia, along with diminished organ toxicity, notably in the liver and kidneys [26, 27]. These findings suggest that TAM may offer protection against the adverse side effects of conventional cancer treatments.

Furthermore, this study highlights the potential of TAM in contributing to tumor reduction, as assessed by RECIST criteria, and in decreasing tumor markers [28]. This indicates that TAM may not only play a role in

alleviate treatment-related side effects but also enhance antitumor activities [29]. Quality of life and patient satisfaction emerged as critical components in our study, with TAM treatment correlating with improved overall well-being and higher satisfaction rates. This underscores the importance of a holistic treatment approach that addresses the patients' physical and psychological needs.

This study reviewed language publications from all countries using predetermined criteria. As most traditional medicine research occurs in East Asia, it is possible that the studies are limited to certain countries [30]. The amount of research from East Asia has been increasing. This, together with the high evaluative standards used, the potential bias was minimized. Furthermore, English publications rarely report significant outcomes related to the improvement in quality of life associated with herbal medicine. In considering the integrated treatment approach for severe diseases, such as lung cancer, this aspect warrants further investigations In East Asian countries, such as China, Korea, Taiwan, and Japan, medical care combines Western and traditional medicine in a dual healthcare system, resulting in extensive patient data on herbal medicine and other traditional medical interventions. This review applied a rigorous process for paper selection, including random allocation and blinding of the outcome assessment, to ensure research quality and reliability [31].

The advantages and unique characteristics of integrative medical therapy have been extensively demonstrated through numerous institutional studies. This protocol aims to systematically review and analyze the efficacy and safety of concurrent TAM alongside standard lung cancer treatments. By summarizing and assessing these findings, we intend to establish a critical evidence base that will support the development of future Clinical Practice Guidelines (CPG) for the integrative application of TAM in lung cancer care. This effort will ultimately aid clinicians in making evidence-based, informed decisions regarding the adoption of TAM in routine clinical practice for lung cancer patients.

Abbreviations

CI	Confidence Interval
CPG	Clinical Practice Guidelines
DC	Docetaxel, Cisplatin
GC	Gemcitabine, Cisplatin
MD	Mean Difference
NSCLC	Non-Small Cell Lung Cancer
OS	Overall Survival
PC	Paclitaxel, Cisplatin
PFS	Progression-Free Survival
RCTs	Randomized Controlled Trials
RECIST	Response Evaluation Criteria in Solid Tumors
ROB	Risk of Bias
SCLC	Small Cell Lung Cancer
SMD	Standard Mean Differences
TAM	Traditional Asian Medicine
VC	Vinorelbine, Cisplatin

Acknowledgements
We would like to express our gratitude to all collaborators and participants who contributed valuable insights and feedback during the preparation of this protocol.

Author Contributions
KJL and DHK contributed equally as co-first authors, with KJL leading the conceptualization and manuscript preparation, and DHK developing the search strategies and managing data extraction. JHK and MSP contributed to the study selection and data verification, respectively, enhancing methodological rigor. Supervision was provided by SJP and SWS, who oversaw the entire project, including critical revisions and ensuring ethical compliance. SJP also secured funding and coordinated project logistics. All authors participated in reviewing, discussing, and approving the final manuscript for publication. We would like to thank Editage (www.editage.com) for English language editing.

Funding
This work was supported by the Korea Health Technology R&D Project through the Korea Health Industry Development Institute (KHIDI), funded by the Ministry of Health & Welfare, Republic of Korea, grant no. RS-2023-KH139460.

Availability of Data and Materials
No datasets were generated or analysed during the current study.

Declarations

Ethics Approval and Consent to Participate
Not applicable.

Consent for Publication
Not applicable.

Competing interests
The authors declare no competing interests.

Author details
[1]Department of Internal Medicine, Korean Medicine Hospital, Pusan National University, Yangsan, Republic of Korea. [2]Department of Korean Internal Medicine, Graduate School, Daejeon University, Daejeon, Republic of Korea. [3]Pusan National University School of Korean Medicine, Yangsan, Republic of Korea.

Received: 22 January 2025 Accepted: 4 March 2025
Published online: 08 May 2025

References

1. Sun Y. The pathogenesis, prevention, early diagnosis and treatment for lung cancer. China Med Tribune. 2004;30:13.
2. Howe HL, Wingo PA, Thun MJ, Ries LA, Rosenberg HM, Feigal EG, et al. Annual report to the nation on the status of cancer (1973 through 1998), featuring cancers with recent increasing trends. J Natl Cancer Inst. 2001;93(11):824–42.
3. Costa DB, Kobayashi S, Tenen DG, Huberman MS. Pooled analysis of the prospective trials of gefitinib monotherapy for EGFR-mutant non-small cell lung cancers. Lung Cancer. 2007;58(1):95–103.
4. Carlson JJ, Garrison LP, Ramsey SD, Veenstra DL. Epidermal growth factor receptor genomic variation in NSCLC patients receiving tyrosine kinase inhibitor therapy: a systematic review and meta-analysis. J Cancer Res Clin Oncol. 2009;135:1483–93.
5. Chen Y, Zhang C, Pan C, Yang Y, Liu J, Lv J, et al. Effects of Shenmai injection combined with platinum-containing first-line chemotherapy on quality of life, immune function, and prognosis of patients with nonsmall cell lung cancer: a protocol for systematic review and meta-analysis. Medicine (Baltimore). 2021;100(44): e27524.
6. Gebbia V, Galetta D, Caruso M, Verderame F, Pezzella G, Valdesi M, et al. Gemcitabine and cisplatin versus vinorelbine and cisplatin versus

ifosfamide and gemcitabine followed by vinorelbine and cisplatin versus vinorelbine and cisplatin followed by ifosfamide and gemcitabine in stage IIIB-IV non-small cell lung carcinoma: a prospective randomized phase III trial of the Gruppo Oncologico Italia Meridionale. Lung Cancer. 2003;39:179–89.
7. Mulshine JL, Treston AM, Brown PH, Birrer MJ, Shaw GL. Initiators and promoters of lung cancer. Chest. 1993;103(1):4S-11S.
8. Usuda K, Saito Y, Sagawa M, Sato M, Kanma K, Takahashi S, et al. Tumor doubling time and prognostic assessment of patients with primary lung cancer. Cancer. 1994;74(8):2239–44.
9. Tamura T. New state of the art in small-cell lung cancer. Oncology (Huntingt). 2001;15:8–10.
10. Zochbauer-Muller S, Pirker R, Huber H. Treatment of small cell lung cancer patients. Ann Oncol. 1999;10(suppl 6):83–91.
11. Adjei AA, Marks RS, Bonner JA. Current guidelines for the management of small cell lung cancer. Mayo Clin Proc. 1999;74:809–16.
12. Zhang Y, Lou Y, Wang J, Yu C, Shen W. Research status and molecular mechanism of the traditional Chinese medicine and antitumor therapy combined strategy based on tumor microenvironment. Front Immunol. 2021;11: 609705.
13. Li SG, Chen HY, Ou-Yang CS, Wang XX, Yang ZJ, Tong Y, et al. The efficacy of Chinese herbal medicine as an adjunctive therapy for advanced non-small cell lung cancer: a systematic review and meta-analysis. PLoS ONE. 2013;8(2): e57604.
14. Dong J, Su SY, Wang MY, Zhan Z. Shenqi fuzheng, an injection concocted from Chinese medicinal herbs, combined with platinum-based chemotherapy for advanced non-small cell lung cancer: a systematic review. J Exp Clin Cancer Res. 2010;29:137.
15. Moher D, Shamseer L, Clarke M, Ghersi D, Liberati A, Petticrew M, et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Syst Rev. 2015;4(1):1.
16. Gotschall T. EndNote 20 desktop version. J Med Libr Assoc. 2021;109(3):520–2.
17. Higgins JP, Altman DG, Gøtzsche PC, Jüni P, Moher D, Oxman AD, et al. The Cochrane collaboration's tool for assessing risk of bias in randomized trials. BMJ. 2011;343: d5928.
18. Guyatt GH, Oxman AD, Schünemann HJ, Tugwell P, Knottnerus A. GRADE guidelines: a new series of articles in the Journal of Clinical Epidemiology. J Clin Epidemiol. 2011;64(4):380–2.
19. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin. 2021;71:209–49.
20. Zhou LR, Ju BZ. Exploration on the evolution law of 'knot' pathogenesis in accumulation diseases based on Huangdi Neijing. Chin J Tradit Chin Med Pharm. 2022;37(6):3053–5.
21. Zhang XZ, Zhang NS. Discussion on TCM syndrome differentiation in advanced lung cancer. J Pract Tradit Chin Intern Med. 2008;6:85–6.
22. Guo XQ, Feng CL, Mu XL. Approach to distribution characteristics of TCM syndromes of patients with medium and advanced lung cancer. Shanxi J Tradit Chin Med. 2024;40(1):53–5.
23. Xin H, Zhao WS. Analysis of Huangdi Neijing and metastasis of lung cancer. Sichuan J Tradit Chin Med. 2005;23(10):37–8.
24. Ni LL, Li Y. Neijing theory in prevention and treatment of lung cancer. Liaoning J Tradit Chin Med. 2013;40(8):1572–3.
25. Zhu YZ, Dong WX, Zou CP, Su L, Hou YF, Liu MX, et al. Internal immune mechanism of psoriasis and lung cancer comorbidity based on the theory of 'lung governing skin and body hair.' Chin J Tradit Chin Med Pharm. 2022;37(5):2813–9.
26. Liu ZD, Cao ND, Mu XY, Pei J. Acupuncture and moxibustion in the treatment of side reactions induced by antineoplastic therapy among patients with cancer. Acta Chin Med Pharmacol. 2012;40(3):151–5.
27. Deng HB, Wang ZQ, Wu J, Zhou WD. Combination of "Kangliu Zengxiao Formula" and chemotherapy for the treatment of advanced non-small cell lung cancer: report of 97 cases. Shanghai J Tradit Chin Med. 2014;48(4):32–5.
28. Wu J, Xu ZY. Clinical study on treatment of advanced non-small cell lung cancer with Kangliu Zengxiao decoction. Chin J Integr Tradit West Med. 2010;30(2):137–40.
29. Huang JB, Huang CJ. Effects of Yiqi Qingfei decoction combined with chemotherapy on life quality of elderly patients with late-stage non-small cell lung cancer. World Chin Med. 2014;9(10):1303–6.
30. Fu HZ, Ho YS. Independent research of China in science citation index expanded during 1980–2011. J Informetr. 2013;7(1):210–22. https://doi.org/10.1016/j.joi.2012.11.005.
31. Park HL, Lee HS, Shin BC, Liu JP, Shang Q, Yamashita H, et al. Traditional medicine in China, Korea, and Japan: a brief introduction and comparison. Evid Based Complement Alternat Med. 2012;2012: 429103.

Publisher's Note