



International Journal of Case Reports (ISSN:2572-8776)



Effect of RevX solution adjunct to standard therapy in a patient with metastatic lung adenocarcinoma: A case report

Cheng-Jui Lin, MD, PhD^{1,2,3}

¹Division of Nephrology, Department of Internal Medicine, MacKay Memorial Hospital, Taipei, Taiwan. ²Department of Medicine, Mackay Medical College, New Taipei City, Taiwan. ³Mackay Junior College of Medicine, Nursing and Management, Taipei, Taiwan.

ABSTRACT

RevX solution is a liquid fermented grain extract obtained through a unique extraction technology, and its ingredients contain phytoosterols, sulfonamides, organic acids, and anti-inflammatory substances. The adjunct treatment of RevX for lung adenocarcinoma has not yet been surveyed in vitro or in vivo experiments. A 71-year-old woman was diagnosed with lung adenocarcinoma. She underwent the targeted therapy and continually took the RevX solution (3 to 5 ml per day). Sixteen months after diagnosis and targeted therapy, multiple lung metastases appeared. After the second-line targeted therapy and wedge resection for 16 months, the patient was still alive. The distinct improvement of hypodynamia and fewer complication was found during targeted therapy treatment complemented with the RevX solution for longer than 4 years. Thus, the RevX solution might potentially be an adjuvant therapy for patients with metastatic lung adenocarcinoma.

Keywords: Metastatic lung adenocarcinoma, traditional Chinese medicine, RevX solution

*Correspondence to Author:

Cheng-Jui Lin, MD, PhD
Division of Nephrology, Department of Internal Medicine, MacKay Memorial Hospital, Taipei, Taiwan.

How to cite this article:

Cheng-Jui Lin. Effect of RevX solution adjunct to standard therapy in a patient with metastatic lung adenocarcinoma: A case report. International Journal of Case Reports, 2021, 5:238.

 eSciPub
eSciPub LLC, Houston, TX USA.
Website: <http://escipub.com/>

Introduction

Lung cancer is one of the most commonly cancer types and the worldwide second cause of mortality in women [1]. Increasing lung cancer cases and death were shown in the past decade [2, 3]. Generally, lung cancer is categorized as small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC), and adenocarcinoma is one of the NSCLC subtypes. Some alternative medicine therapies such as traditional Chinese medicine (TCM) were evidenced to facilitate the treatment of lung cancer in Taiwan [4-7]. However, only a small portion of lung cancer patients were TCM users according to Taiwan National Health Insurance Research Database (NHIRD) from 2001 to 2009 [8].

Previous studies discovered various fermented grain extracts and brought more evidence of antioxidation, radical scavenging, antiproliferative, disease prevention, and lifespan extension. [9-16]. RevX solution is a liquid fermented grain extract obtained through a unique extraction technology, and its ingredients contain phytosterols, sulfonamides, organic acids, and anti-inflammatory substances. Cell experiments confirmed that it has anti-inflammatory effect and inhibits the growth of cancer cells. This study aims to explore the benefit of a case with lung adenocarcinoma treated with the RevX solution adjunct to standard therapy.



Figure 1. The chest X-ray of the case when diagnosed with left upper lobe (LUL) lung adenocarcinoma in this study.

Case report

A 71-year-old woman was diagnosed with left upper lobe (LUL) lung cancer (Figure 1). Epidermal growth factor receptor (EGFR) Exon

19 deletion and anaplastic lymphoma kinase (ALK) mutation were detected. Besides, pathological diagnosis showed a lung adenocarcinoma [cT2N1M1a, stage IVA] along

with malignant pleural effusion. She underwent the targeted therapy of afatinib and started to take the RevX solution (3 to 5 ml per day) continually.

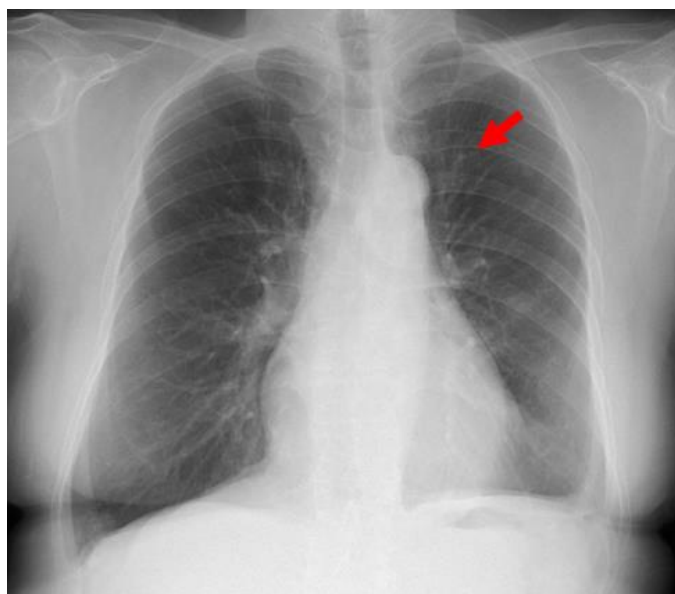


Figure 2. The chest X-ray of the case after undergoing the left lower lobe (LLL) wedge resection and hyperthermic intrathoracic chemotherapy (HITHOC) in this study.

After 16 months, her lung cancer progress to the left lower lobe (LLL), with lymph node metastasis was diagnosed. Therefore, the second line targeted therapy of osimertinib was treated, and she continued to take the RevX solution. After 15 months, she underwent the LLL wedge resection and hyperthermic intrathoracic chemotherapy (HITHOC) (Figure 2). After 14 months, computed tomography (CT) of the whole abdomen showed lung and new liver nodules and ruled out liver and right iliac bone metastasis. However, days later, the case complained of severe and persistent left shoulder pain with radiation to the left axilla and chest wall. Magnetic resonance imaging (MRI) of the cervical spine showed left side vertebral tumors in C6, C7, and T2 with pedicle involvement and left paraspinal soft tissue tumor, favor bone metastasis. Finally, palliative radiotherapy was

suggested. Denosumab was prescribed, and radiotherapy (RT) started on next day. Besides, Alimta, cisplatin, bevacizumab, atezolizumab, exforge, celecoxib, and trileptal were prescribed later. Disease control has been maintained for more than 4 years since the start of treatment. The recent chest X-ray was shown in Figure 3. Besides, the distinct improvement of mental, physical strength and complications such as diarrhea was found during the treatment of targeted therapy complemented with the RevX solution. The patient provided informed consent for the publication of all clinical details and images.

Discussion

This is the first report of a lung adenocarcinoma case that underwent a standard therapy adjunct with the RevX solution. The continuity of the

RevX solution intake benefited the standard therapy of this case, including the targeted therapy and RT. In addition, improvement of mental and physical strength along with fewer complications from targeted therapy were shown in this case.

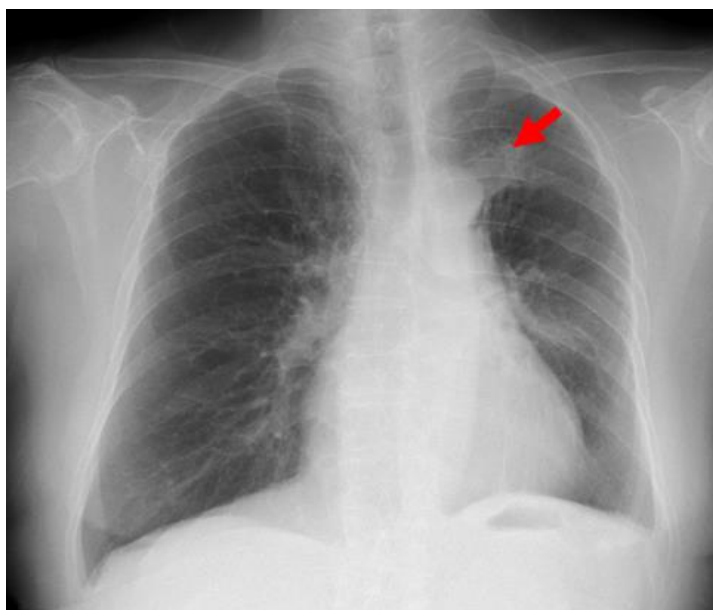


Figure 3. The chest X-ray of the case diagnosed with LUL lung adenocarcinoma and treated with standard therapy and adjunct with the RevX solution for 4 years in this study.

As a functional food, the RevX solution with biologically active ingredients is associated with physiological health benefits [17]. The use of functional foods as an adjunct therapy for prevention and management of diseases has been increased by decades and was applied in patients seeking relief of symptoms associated with chronic illness and side effects of conventional medication [17, 18]. However, compared to the TCM studies, clinical studies that involved adjunct therapy of human lung cancer are still absent and need to be validated. Therefore, this study might shed light on the RevX solution for more valuable functions, such as the adjunct therapy of lung adenocarcinoma. Given the limitation of single case report,

however, further validation of the efficacy of RevX solution in a larger patient cohort with lung adenocarcinoma is required.

Reference

- [1]. Bade BC, Dela Cruz CS. Lung Cancer 2020: Epidemiology, Etiology, and Prevention. *Clin Chest Med.* 2020;41:1-24.
- [2]. Bray F, Ferlay J, Soerjomataram I, et al. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin* 2018;68: 394–424.
- [3]. World Health Organization. Cancer fact sheets, lung cancer. 2018. Available at: <http://gco.iarc.fr/today/fact-sheets-cancers>. Accessed August 8, 2021.

- [4]. Liu ZL, Zhu WR, Zhou WC, et al. Traditional Chinese medicinal herbs combined with epidermal growth factor receptor tyrosine kinase inhibitor for advanced non-small cell lung cancer: a systematic review and meta-analysis. *J Integr Med.* 2014;12:346-58.
- [5]. Yang XB, Wu WY, Long SQ, et al. Effect of gefitinib plus Chinese herbal medicine (CHM) in patients with advanced non-small-cell lung cancer: a retrospective case-control study. *Complement Ther Med.* 2014;22:1010-8.
- [6]. Tang WR, Yang SH, Yu CT, et al. Long-Term Effectiveness of Combined Treatment with Traditional Chinese Medicine and Western Medicine on the Prognosis of Patients with Lung Cancer. *J Altern Complement Med.* 2016;22:212-22.
- [7]. Li CL, Hsia TC, Li CH, et al. Adjunctive Traditional Chinese Medicine Improves Survival in Patients With Advanced Lung Adenocarcinoma Treated With First-Line Epidermal Growth Factor Receptor (EGFR) Tyrosine Kinase Inhibitors (TKIs): A Nationwide, Population-Based Cohort Study. *Integr Cancer Ther.* 2019 ;18:1534735419827079.
- [8]. Kuo YT, Chang TT, Muo CH, et al. Use of Complementary Traditional Chinese Medicines by Adult Cancer Patients in Taiwan: A Nationwide Population-Based Study. *Integr Cancer Ther.* 2018;17:531-541.
- [9]. Li L, Ying XJ, Sun TT, et al. Overview of methodological quality of systematic reviews about gastric cancer risk and protective factors. *Asian Pac J Cancer Prev.* 2012;13:2069-79.
- [10]. La Marca M, Beffy P, Pugliese A, et al. Fermented wheat powder induces the antioxidant and detoxifying system in primary rat hepatocytes. *PLoS One.* 2013;8:e83538.
- [11]. Pyo YH, Seong KS. Effects of Monascus-fermented grain extracts on plasma antioxidant status and tissue levels of ubiquinones and α -tocopherol in hyperlipidemic rats. *Food Chem.* 2013;141:428-35.
- [12]. Tatewaki N, Bhilwade HN, Nishida H, et al. Manipulation of DNA damage checkpoint signaling in cancer cells by antioxidant biofactor (AOB). *Food Funct.* 2013;4:63-73.
- [13]. Zaroug M, Orhan IE, Senol FS, et al. Comparative antioxidant activity appraisal of traditional Sudanese kisra prepared from two sorghum cultivars. *Food Chem.* 2014;156:110-6.
- [14]. Wu HC, Chen ST, Chang JC, et al. Radical Scavenging and Antiproliferative Effects of Cordycepin-Rich Ethanol Extract from Brown Rice-Cultivated *Cordyceps militaris* (Ascomycetes) Mycelium on Breast Cancer Cell Lines. *Int J Med Mushrooms.* 2019;21:657-669.
- [15]. Liu J, Wang H, Liu X, et al. Chinese liquor extract attenuates oxidative damage in HepG2 cells and extends lifespan of *Caenorhabditis elegans*. *Food Sci Nutr.* 2020;8:3164-3172.
- [16]. Das G, Heredia JB, de Lourdes Pereira M, et al. Korean traditional foods as antiviral and respiratory disease prevention and treatments: A detailed review. *Trends Food Sci Technol.* 2021 Jul 30. doi: 10.1016/j.tifs.2021.07.037.
- [17]. Alkhatib A, Tsang C, Tiss A, et al. Functional Foods and Lifestyle Approaches for Diabetes Prevention and Management. *Nutrients.*

2017;9:1310.

- [18]. Ernst E, Pittler MH. Assessment of therapeutic safety in systematic reviews: literature review. *BMJ*. 2001;323(7312):546.

