A case of clinically complete remission of lung with hyperthermia and concurrent 5th-line chemotherapy in a disseminated NSCLC patient

Seong Gi Min, MD, Zenith Hospital, Seoul, Republic of Korea

Backgrounds
Lung cancer is the leading cause of cancer death worldwide. With combination chemotherapy, the median survival is 8–10 months. Besides chemotherapy, various modalities have been evaluated to get better survival. Hyperthermia is a new therapeutic approach and has synergistic effect with chemotherapy to control the disease and to improve the survival. Some clinical characteristics, i.e., female, adenocarcinoma, and never-smoker, show good prognosis. However, the efficacy of 5th-line chemotherapy for disseminated NSCLC is doubtful. Recently, we experienced the excellent response of one case of lung-to-lung metastatic NSCLC being clinically nearly complete remission of lung with hyperthermia (EHY-2000) and concurrent 5th-line chemotherapy.

Case presentation

Patient: Female/53, never-smoker
Pathology, lung: adenocarcinoma, EGFR mutation (-) The date of diagnosis: May, 2007
Current status: metastases to lung-to-lung, brain, bone, pleura
Past medical history & present illness: She had received LUL lobectomy on May/17/2007 followed by adjuvant CCRT. In May, 2009, the recurrence, brain, lung and bone metastasis was developed. After GKS on May/27/2009, palliative chemotherapy was administered. Those chemotherapy regimens were gemcitabine/cisplatin, gefitinib, and pemetrexed from August/3/2009 to November/3/2011. In June, 2011, she also had received craniotomy & tumor removal of right parietal lobe followed by whole brain radiotherapy (November/22-25/2011). Since January 2012, an agent in clinical trial had been administered. With progressive disease, the agent was switched to 5th-line palliative chemotherapy, docetaxel on March/21/2012. Hyperthermia, EHY-2000 system (Oncotherm GmbH, Troisdorf, Germany) had been applied on her chest since February/7/2012. After 3rd cycle of hyperthermia, clinically nearly complete response was observed on chest X-ray and chest CT.
Conclusion: The concurrent therapy of hyperthermia and chemotherapy would be promising in disseminated NSCLC.


Hyperthermia: (2012/2/2-2012/7/9)

Metastatic Brain Tumor
June/2011
Controlled
Hydrocephalus with Ommaya reservoir
Metastatic Brain Tumor
August/2012
Aggravated
Hydrocephalus & Leptomeningeal seeding

Non Hyperthermia