

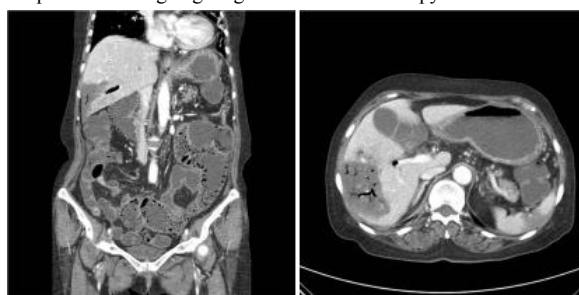
Pneumatosis intestinalis and portal venous gas secondary to gefitinib therapy for lung adenocarcinoma

¹Department of Internal Medicine, College of Medicine, Chungbuk National University, Cheongju,

²Department of Pathology, College of Medicine, Chungbuk National University, Cheongju, South Korea

*Joo Young Lee¹, Hye-Suk Han¹, Sung-Nam Lim¹, Young Kwang Shim¹, Yong Hyeok Choi¹, Ok-Jun Lee²,
Ki Hyeong Lee¹, Seung Taik Kim¹

Pneumatosis intestinalis (PI), and portal venous gas (PVG) are relatively rare radiological findings. Although several chemotherapeutic agents and anti-vascular endothelial-growth-factor-agents have been reported to be associated with PI and PVG, no previous report has described an association with anti-epidermal growth factor receptor (EGFR) agents. The present report describes a case of PI and PVG secondary to an EGFR tyrosine kinase inhibitor. A 66-year-old woman who had been diagnosed metastatic lung adenocarcinoma presented with nausea, vomiting, and abdominal distension 2 months after commencing gefitinib. A computed tomography scan (CT) of the abdomen revealed PI extending from the ascending colon to the rectum, hepatic PVG, and infarction of the liver. Gefitinib therapy was discontinued immediately and the patient was managed conservatively. A follow-up CT scan 2 weeks later revealed that the PI and hepatic PVG had completely resolved. This is the first report to be issued regarding PI and PVG caused by EGFR tyrosine kinase inhibitor. Although these complications are extremely rare, clinicians should be aware of the risk of PI and PVG in patients undergoing targeted molecular therapy.



The prognostic role of metabolic tumor volume at initial diagnosis in PET CT imaging in patients with large cell lung cancer

¹Department of Medical Oncology, The Catholic University of Korea, Seoul, Korea,

²Department of Nuclear Medicine, The Catholic University of Korea, Seoul, Korea

*Ji Hyung Hong¹, Sarah Park¹, Eun Ji Han², Je Ryung Yoo²

The prevalence of large cell lung cancer is about 9% of all non-small cell lung cancer. The maximal standardized uptake value (SUVmax) and metabolic tumor volume (MTV) of large cell lung cancer is not well established. The aim of this study is to present the characteristics of patients with large cell lung cancer, especially such as SUVmax, MTV and photon defect of primary tumor site in PET CT image and also to find out some potential factors to predict the survival of the patients with large cell lung cancer. Of 33 patients with histologically confirmed large cell lung cancer between 2006 and 2010 at Seoul St. Mary's Hospital, the clinical characteristics and survival outcomes were assessed on the basis of age, sex, TNM staging, SUVmax, MTV and photon defect of primary tumor site in PET CT at initial diagnosis. Stage I,II was 5(15.1%), III 14 (42.4%), IV 14 (42.4%) patients. Primary tumor size was from 1.3-12.8 cm (median 4.5 cm). Mean SUVmax and MTV were 10.53±5.69, 138.36±341.99, respectively. 14 (42.4%) patients had photon defect in their primary tumor. Of 33 patients, 11 (33.3%) patients reached complete or partial responses. Photon defects were observed in 7 (63.6%) among 11 patients of responders and 5 (35.7%) among 14 patients of non-responders ($p=0.238$). Mean SUVmax was 11.13±5.85, 10.40±3.58 ($p=0.176$), and MTV was 73.46±96.87, 232.06±486.70 ($p=0.285$) respectively. There was no significant differences between two groups, but some tendency of increase of SUVmas and MTV in non-response group was observed. Median survival time was 7 months and progression-free survival 3 months. Factors that had significant impact on overall survival were MTV ($p=0.017$), stage ($p=0.027$) and age ($p=0.026$). Factors that had significant impact on progression free survival were MTV ($p=0.036$) and stage ($p=0.018$). But photon defect and SUVmax of primary tumor site failed to show significant differences on the survival of patients. Our study presents the values of SUVmax, MTV and photon defect of primary tumor site at initial diagnosis in patients with the large cell lung cancer, and MTV can be a potential prognostic factor on survival of patients with large cell lung cancer.