

Tumor Response Assessment by the Single-lesion Measurement per Organ

Department of Internal Medicine, Kangnam Sacred Heart Hospital, Hallym University Medical Center, Hallym University College of Medicine, Seoul, Korea

*Soo Ho Kim, Jung Han Kim, Hyeong Su Kim

Background: The RECIST 1.1 adopted a total of five target lesions to be measured, with a maximum of two lesions per organ. To the best of our knowledge, the criterion of two target lesions per organ in the RECIST 1.1 is arbitrary and has not been supported by any objective evidence. We compared tumor responses using the RECIST 1.1 (measuring two target lesions per organ) and modified RECIST 1.1 (measuring the single largest lesion in each organ) in patients with small cell lung cancer (SCLC), advanced or metastatic non-small cell lung cancer (NSCLC), gastric cancer (GC), and colorectal cancer (CRC). **Methods:** We reviewed medical records of patients with SCLC, advanced or metastatic NSCLC, GC, and CRC who received first-line treatment between January 2004 and December 2014 and compared tumor responses according to the RECIST 1.1 and modified RECIST 1.1 (mRECIST 1.1). **Results:** A total of 187 patients who had at least two target lesions in any organ according to the RECIST 1.1 were included in this study: 34 with SCLC, 64 with NSCLC, 51 with GC, and 38 with CRC. Regardless of primary sites, the number of target lesions according to the mRECIST 1.1 was significantly lower than that according to the RECIST 1.1 ($p < 0.001$). The assessment of tumor responses showed a high concordance between the two criteria ($k = 0.925$). Only eight patients (4.3%) showed disagreement in the tumor response assessment between the two criteria. The overall response rates of chemotherapy were not significantly different between the two criteria (38.5% versus 38.5%, $p = 1.0$). **Conclusions:** The modified RECIST 1.1 was comparable to the original RECIST 1.1 in the assessment of tumor response of patients with SCLC, advanced or metastatic NSCLC, GC, and CRC. Our results suggest that it may be possible to measure the single largest lesion per organ for assessing tumor response in clinical practice. **Keywords:** RECIST 1.1; modified RECIST 1.1; Target lesion; Tumor response; Single-lesion measurement

Recurrent thrombosis after endovascular treatment for malignant superior vena cava syndrome

¹Department of Internal Medicine¹, National Cancer Center, Goyang, Korea, ²Department of Radiology, National Cancer Center, Goyang, Korea

*Sang Ho Lee¹, Sun Young Kim¹, Heung Tae Kim¹, Chang Woo Shim¹, Ho Seok Chi¹, Hye In Lee¹, Do Il Choi¹, Hyun Bum Kim², In Jun Lee²

Endovascular treatment (EVT) including angioplasty and stenting is an effective treatment for superior vena cava (SVC) syndrome. Recurrence of SVC syndrome is mainly caused by tumor progression and occurs in around 20% after EVT, but sometimes venous thrombosis within stent accounts for recurrence of SVC syndrome. Anticoagulation after EVT is still a controversial issue. In our case, a 73 year-old man with SVC syndrome caused by mediastinal lymph node metastasis from non-small cell lung cancer underwent EVT followed by anticoagulation with low molecular weight heparin (LMWH), but symptomatic progression due to in-stent thrombosis necessitated the second procedure after two weeks. A total of 4 sessions of EVT and anticoagulation with LMWH, warfarin and rivaroxaban did not induce durable resolution of in-stent thrombosis. The 4th EVT was done with stent-graft, but computed tomography after the last procedure revealed remained thrombus in SVC and newly developed pulmonary thromboembolism during warfarinization. Our case suggests refractory in-stent thrombosis could develop despite of anticoagulation after EVT for SVC syndrome.