Oncology Research and Treatment

Original Article

Oncol Res Treat 2016;39:130–134
DOI: 10.1159/000444272

Received: February 13, 2015
Accepted: January 20, 2016
Published online: February 23, 2016

Pretreatment PET/CT Standardized Uptake Values Play a Role in Predicting Response to Treatment and Survival in Patients with Small Cell Lung Cancer

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Keywords

Small cell lung cancer · PET/CT · SUV

Summary

Background: We investigated the role of standardized uptake values (SUVs) of the primary tumor in small cell lung cancer (SCLC) patients. **Patients and Methods:** The relationship between SUV and response to treatment was investigated using receiver operating characteristic (ROC) curve analysis, and the efficient cut-off value for detecting response to treatment was determined. The effects of SUV on response to treatment and survival were investigated. **Results:** 90 patients with a median age of 58 years (range 39–83 years) were included. Median follow-up was 11 months. The suitable cut-off SUV for determination of response was found to be 10 in ROC analysis. The sensitivity and specificity of this value were 85.7% (95% confidence interval (95% CI) 63–96) and 61.8% (95% CI 49–73) (area under the curve 0.783; $p = 0.0001$), respectively. The overall objective response rate in patients with involvement above the cut-off value was 93.3% compared to 59.1% in those with involvement below the cut-off value ($p < 0.0001$). In uni- and multivariate analysis, favorable effects of limited-stage disease on response to treatment were established ($p < 0.05$). The effect of an SUV higher than the cut-off value on progression-free survival was borderline ($p = 0.085$). **Conclusion:** These data may contribute to identifying prognostic disease characteristics and response to treatment.

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Introduction

Small cell lung cancer (SCLC), accounting for 15–20% of all new cases of lung cancer, is a rapidly disseminating tumor with a poor prognosis. It is characterized by a rapid growth rate, early dissemination, and sensitivity to both chemotherapy and radiotherapy. Untreated, the outcome is poor, with a median survival of 2–3 months [1].

Patients with SCLC are staged according to a 2-stage system, which was developed by the Veterans Administration Lung Cancer Study Group, as having limited disease (LD) or extensive disease (ED). LD is defined as disease confined to 1 hemithorax, which can be encompassed in a tolerable radiation field [2]. In the approximately 30% of patients diagnosed with disease confined to the thorax, adding radiotherapy to chemotherapy has significantly increased long-term survival. The current standard treatment for this patient group consists of combined chemoradiotherapy followed by prophylactic cranial irradiation in those responding to treatment [3]. Concurrent treatment results are a median survival of 18–26 months, 2-year survival of 35–45%, and 5-year survival of 23–26% [4]. ED is defined as disease extending outside the thorax or the existence of malignant pleural effusion. The mainstay of treatment for ED-SCLC is palliative chemotherapy with an expected median survival of less than 12 months [5].

Tumor stage is the most important prognostic factor of SCLC; other prognostic factors include performance status, weight loss, and serum lactate dehydrogenase (LDH) [6]. More discriminative prognostic markers are needed to allow better stratification for appropriate therapy and more accurate prediction of treatment outcome and survival. (18F)fluorodeoxy-D-glucose (FDG) positron

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2296–5270/16/0393–0130$39.50/0

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emission tomography (FDG-PET) has emerged over the last decade as an important tool in the staging of non-small cell lung cancer (NSCLC) and is being increasingly used in the early evaluation of response to treatment, diagnosis of recurrence, and delineation of disease for conformal radiotherapy planning [7]; however, its role in SCLC remains ambiguous. In our study, we evaluated the maximum standardized uptake value (SUV_{max}) measured by pretreatment 18F-FDG-PET/computed tomography (CT) to predict survival in patients with SCLC treated with chemotherapy alone or with concurrent chemoradiotherapy. We also investigated whether there was a cut-off value for SUV_{max} of the primary tumor that could predict the response to treatment or survival in patients with SCLC.

Patients and Methods

A total of 90 patients with cytologically or histologically proven LD- or ED-SCLC treated with chemotherapy or chemoradiotherapy between 2008 and 2013 were retrospectively evaluated. Only patients who had undergone a baseline whole-body FDG-PET scan were evaluated. Patients with an ECOG performance status of 0–2 received chemotherapy according to standard protocol (cisplatin or carboplatin on day 1 and etoposide on days 1–3). Chemotherapy cycles were repeated every 21 days for a total of 4–6 cycles.

FDG-PET and CT Imaging

Baseline scanning consisted of a whole-body FDG-PET/CT scan. Follow-up for response evaluation was made by CT. Concerning the PET scans, patients had to be fasting for at least 12 h before imaging, and their blood glucose levels were obtained prior to tracer injection. Patients with a fasting glucose level of > 200 mg/dl before PET were excluded from the analysis. The injected total activity of FDG was calculated based on the weight of the patient (6.5 MBq/kg (370–555 MBq)). The patients rested on a comfortable chair during the FDG uptake period. 60–120 min after tracer injection, attenuation-corrected images were acquired with a scanner (axial field of view of 10.1 cm and resolution of approximately 5 mm). A CT scan was performed prior to the acquisition of PET data in a single step with the patients in the supine position for accurate anatomical localization. CT scanning was carried out from the top of the skull through the upper thighs in a single imaging procedure. During the scan, patients were asked to maintain shallow respiration. Thereafter, an emission PET scan was acquired in 2-dimensional mode over the same anatomical regions. Attenuation-corrected PET images, CT scans, and co-registered PET/CT images were interpreted using a dedicated image fusion workstation, and a final consensus was reached for each patient. The interpretation was performed by a nuclear medicine physician. For the determination of SUV, the region of interest (ROI) was automatically placed on the transaxial, coronal, and vertical sections around the focal FDG uptake zone in the primary tumor. The highest SUV for all cross-sectional areas (vertical, coronal, or transaxial) was termed SUV_{max}.

Statistical Analysis

Overall survival (OS) and progression-free survival (PFS) were calculated using the Kaplan-Meier method starting from the first day of chemotherapy. CT response was evaluated for its association with OS and PFS by univariate cox regression analysis. Prognostic factors were compared using the log-rank test in univariate analysis. Hazard ratios (HR) with 95% confidence intervals (CI) were also calculated. All p values were 2-sided in the tests, and p values of ≤ 0.05 were considered statistically significant. Multivariate analysis was carried out using the Cox proportional hazards model to assess the effect of prognostic factors on survival. To evaluate the optimal cut-off value of SUV_{max} for predicting response to treatment, receiver operating characteristic (ROC) analysis was performed. A ROC curve was used to indicate the variability of sensitivity and specificity for cut-off points of PET SUVs.

Table 1. Patient and treatment characteristics

	Patients, n (%) (n = 90)
Age, years	
< 60	51 (56.7)
≥ 60	39 (43.3)
Sex	
Male	81 (90.0)
Female	9 (10.0)
ECOG PS	
0	40 (44.4)
1	50 (55.6)
Stage	
Limited	33 (36.7)
Extensive	57 (63.3)
Smoking history	
No	9 (10.0)
Yes	81 (90.0)
OR (CR + PR)	
Present	69 (76.7)
Absent	21 (23.3)
SUV_{max}	
< 10	45 (50.0)
≥ 10	45 (50.0)

ECOG PS = Eastern Cooperative Oncology Group performance status; OR = overall response; CR = complete response; PR = partial response; SUV_{max} = maximum standardized uptake value.

Results

Patient and treatment characteristics are shown in table 1. In total, 90 eligible patients were enrolled and analyzed. The median age of the patients was 58 years (range 39–93 years). Median follow-up was 11 months (1–43 months). 90% of patients were male, and in 37% the disease was noted to be of limited stage. All patients received platinum + etoposide chemotherapy once every 21 days. The median number of cycles of chemotherapy given was 6 (range 3–7). All LD patients received thoracic radiation. In ROC analysis, the SUV suitable for determining response was found to be 10 (fig. 1). Patients were divided into 2 groups according to the cut-off value determined by ROC analysis. The sensitivity of this value was found to be 85.7% (95% CI 63–96), the specificity was found to be 61.8% (95% CI 49–73) (area under the curve 0.783; p = 0.0001). The objective response rate (complete response + partial response) was 93.3% in the patients above the cut-off value (p < 0.0001) and 59.1% in the other patients. Patients with a high mean SUV_{max} (≥ 10) were more likely to respond to chemotherapy (fig. 2). Response rates were higher in patients ≥ 60 years of age (p = 0.047). No significant relationship was found to exist between sex, stage and performance status, and response to treatment. In the survival analysis carried out, median OS was 17 months (standard error 3; 95% CI 12–22). Univariate and multivariate analysis revealed a positive impact of LD on response to treatment in terms of PFS (p < 0.05). PFS in our study was 9.1 months for SUVs below 10, and 12.9 months for SUVs over 10 (p = 0.085). Median PFS was 9

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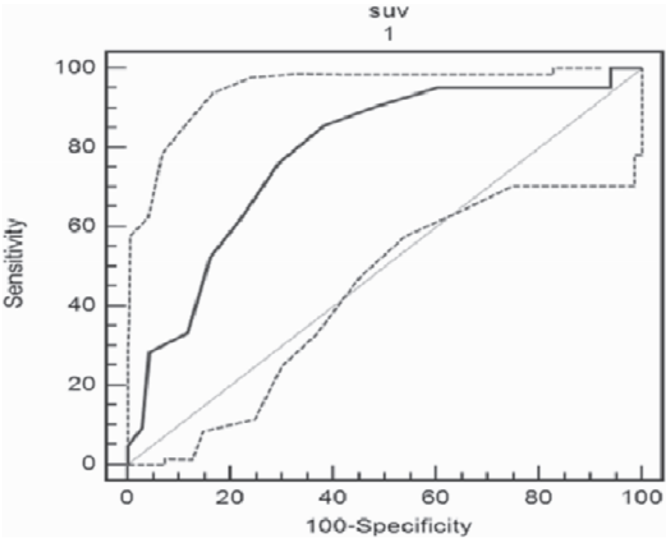

Fig. 1. Receiver operating characteristic (ROC) curve at different cut-off points of the maximum standardized uptake value (SUV_{max}) for predicting response to treatment.

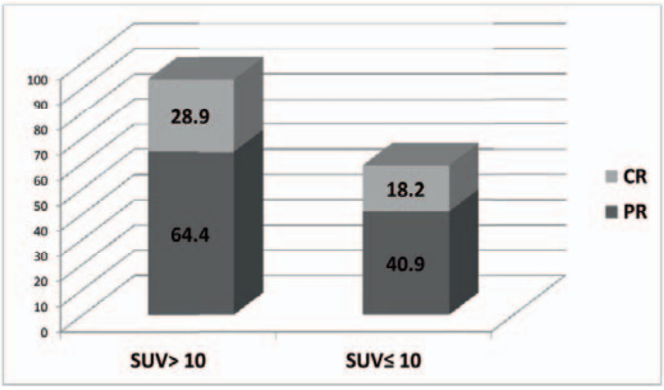

Fig. 2. Relationship between response rate and standardized uptake value (SUV). CR = Complete response; PR = partial response.

months. No significant difference was seen when a similar analysis was carried out for OS (p = 0.621) (fig. 3).

The SUV being above the cut-off value had a borderline positive effect on PFS (p = 0.085). As a result, this had an effect on OS, which was studied using univariate and multivariate analyses. The effects of clinical and demographic characteristic on OS and PFS are shown in table 2.

Table 2. Effect of clinical and demographic characteristics on overall and progression-free survival

	PFS, mo	95% CI	p	OS, mo	95% CI	p
Age, years			0.846			0.846
< 60	9.0	8.0–9.9		16.0	11.5–20.4	
≥ 60	10.0	8.2–11.7		17.0	9.0–24.9	
Sex			0.653			0.753
Male	9.0	7.8–10.1		16.0	12.6–19.3	
Female	8.0	1.2–14.7		19.0	0.1–39.6	
ECOG PS			0.472			0.947
0	9.0	7.3–10.6		20.0	12.4–27.5	
1	8.0	6.4–9.5		17.0	12.7–21.2	
Stage			0.002[a]			0.496
Limited	13.0	7.4–18.5		17.0	9.5–24.4	
Extensive	8.0	6.8–9.1		16.0	10.4–21.5	
OR (CR + PR)			0.0001[a]			0.014[a]
Present	10.0	8.7–11.2		19.0	11.2–26.7	
Absent	5.0	3.2–6.7		10.0	6.9–13.0	
SUV_{max}			0.085			0.621
≤ 10	8.0	6.8–9.1		16.0	12.2–19.7	
> 10	10.0	7.9–12.0		19.0	12.5–25.4	

[a]$p \leq 0.05$.
CI = Confidence interval; mo = months; ECOG PS = Eastern Cooperative Oncology Group performance status; OR = overall response; CR = complete response; PR = partial response; SUV_{max} = maximum standardized uptake value.

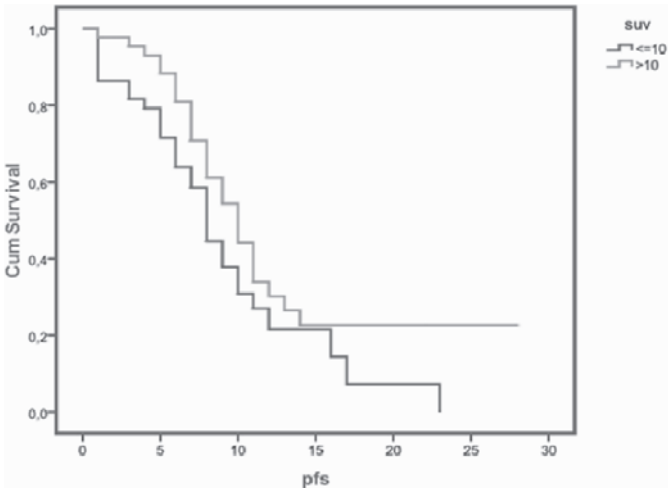

Fig. 3. Kaplan-Meier curves for progression-free survival.

Discussion

To the best of our knowledge, this is the first study to investigate whether there is a cut-off value of SUV_{max} in PET/CT that could predict response to treatment and survival in SCLC patients. The role of PET/CT has increased in the diagnosis and staging of lung cancer. Despite the similar clinical research associated with NSCLC [8], SCLC has received limited research on this topic. We determined the cut-off value of SUV_{max} as 10 by using ROC analysis. However, the optimal cut-off value that could be universally used remains unknown. Our results indicate that while response to treatment was an important factor for predicting survival in multivariate analysis, the SUV_{max} was also a significant factor for determining response to treatment with a cut-off value of 10.

PET imaging has been shown to be of value in the initial staging, treatment, post-treatment follow-up, and prognostic evaluation of other cancers. PET/CT scans have an important role in helping to reach treatment decisions by providing more detailed

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prognostic information in the initial staging for SCLC. Age, sex, LDH, ECOG performance status, weight loss, albumin, and stage are known prognostic factors for SCLC [9, 10]. In addition to that, SUV_{max} of the tumor in patients with SCLC could also serve as a prognostic factor.

Among the studies on PET/CT parameters relevant to SCLC, Oh et al. [11] showed that whole-body metabolic tumor volume (WBMTV) measured by 18F-FDG-PET/CT can predict prognosis. WBMTV, which represents systemic tumor burden in the entire body, can accurately predict the prognosis in patients with SCLC. Patient with a high WBMTV were associated with a poor prognosis compared to those with a low WBMTV. According to the data, patients with a lesser WBMTV can be good candidates for additional radiotherapy to thoracic, cranial, and potentially extracranial metastatic sites for better treatment response and longer survival.

Lee et al. [12] assessed the prognostic value of baseline FDG-PET/CT imaging in 76 consecutive patients (LD = 41, ED = 35) treated for SCLC. Median follow-up was 22.3 months, and median OS was 11.7 months and 24.3 months in patients with a high and low baseline mean SUV_{max} (defined by the median value of 8.7), respectively, which remained significant in multivariate analysis ($p = 0.001$). Of interest, in a subgroup analysis of patients with LD disease, median OS was significantly shorter in those with a high mean SUV_{max} (n = 15) when compared to those with a low mean SUV_{max} (n = 26) (20.1 vs. 35.3 months; $p = 0.02$). Similarly, in patients with ED disease, median OS was significantly shorter in those with a high (n = 23) compared to those with a low (n = 12) mean SUV_{max} (9.5 vs. 17.7 months; $p = 0.007$). Although the number of patients in each subgroup was relatively low, these findings are important and may suggest that FDG-PET/CT has a role in patient stratification in future clinical studies of SCLC. In both subgroups, mean SUV_{max} was significantly correlated with established poor prognostic factors such as higher LDH ($p = 0.04$) and ED ($p = 0.01$). Furthermore, in multivariate analysis, patients with a high mean SUV_{max} were associated with poor survival outcomes compared to patients with a low mean SUV_{max} (adjusted HR 3, 74; 95% CI 1.67–8.37; $p = 0.001$). LD patients with a high mean SUV_{max} showed significantly shorter OS than those with a low mean SUV_{max} (20.1 months (95% CI 7.9–23.2) vs. 35.3 months (95% CI 27.6–42.9); $p = 0.02$). ED with a high mean SUV_{max} resulted in significantly shorter OS than ED with a low mean SUV_{max} (9.5 months (95% CI 4.9–13.9) vs. 17.7 months (95% CI 12.0–20.1); $p = 0.007$). These findings were replicated in the PFS analysis [12].

Zhu et al. [13] researched the relationship between OS and PFS and certain PET metabolic parameters: metabolic tumor volume (MTV), integrated standardized uptake value (iSUV), and mean SUV of all malignant lesions. Patients with a larger MTV had significantly shorter median OS (9.6 vs. 23.2 months; $p < 0.001$) and PFS (6.9 vs. 15.5 months; $p < 0.001$) than patients with a smaller MTV. In multivariate analysis, MTV, iSUV, tumor stage, and LDH were associated with significantly shorter median OS and PFS.

Pandit et al. [14] found that OS in PET-positive cases was significantly worse than that in PET-negative cases ($p = 0.01$), and SUV_{max} was significantly negatively correlated with survival ($p = 0.002$). High SUV_{max} were significantly associated with poor survival. This was a retrospective study of 37 patients previously treated for SCLC (LD = 24, ED = 13). A negative end of treatment FDG-PET scan (defined as no FDG uptake or ill-defined diffuse areas of low-grade uptake) was correlated with significantly longer median survival, and compared to those with a positive scan, 2-year survival rates were 67 and 23%, respectively. However, the timing of the reassessment scan varied, and the median time to imaging in FDG-PET-negative groups was unclear. In a similar study, Blum et al. [15] retrospectively reviewed 25 patients with LD- and ED-SCLC, who underwent end of treatment imaging with FDG-PET, and found that time to progression significantly increased in those who demonstrated a complete metabolic response to treatment (13.7 vs. 9.7 months). However, some patients received thoracic radiotherapy, and the effect of this on metabolic response was not addressed; the timing of reassessment imaging was non-uniform, which might have resulted in lead time bias; and 10/16 patients who failed to achieve a complete response received additional treatment.

Arslan et al. [16] found that total lesion glycolysis (SUV_{max} > 50%) was the only quantitative PET parameter that could predict survival in patients with SCLC ($p = 0.027$).

Studies on volumetric PET parameters in NSCLC were mentioned by the authors:

In addition to SUV_{max}, which is a semi-quantitative PET parameter, volumetric PET parameters have recently also been studied and assessed mostly in NSCLC. These are MTV and total glycolytic activity for all contoured lesions. Pretreatment MTV is a predictor of clinical outcome for NSCLC patients treated with chemoradiotherapy. Quantitative PET measures may serve as stratification factors in clinical trials for this patient population and may help guide novel trial designs [17].

According to our results, SCLC patients with $SUV_{max} < 10$ may require a more aggressive treatment approach, including for example early radiotherapy, dose-dense chemotherapy, maintenance therapy for ED, and consolidation chemotherapy using non-cross-resistant drugs for LD. Further research into potential benefits in this higher-risk subset of SCLC patients is warranted.

Concurrent chemoradiotherapy for SCLC is associated with considerable toxicity. Hence, early anticipation of the benefit that can be expected from this treatment, prior to the onset of the most toxic part of therapy, would be of great value. 18F-FDG-PET imaging can provide more accurate prognostic information because metabolic processes precede gross anatomic changes. As a result, the combination of anatomic assessment of total tumor load and metabolic assessment of tumor aggressiveness seem to have reached high discriminative power of survival prediction in SCLC. More controlled prospective studies with a larger number of patients will be needed to confirm this promising strategy and improve the prediction of prognosis in patients with SCLC.

Disclosure Statement

The authors did not provide a statement on possible conflicts of interest.

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References

1 Pelayo Alvarez M, Gallego Rubio O, Bonfill Cosp X, Agra Verale Y: Chemotherapy versus best supportive care for extensive small cell lung cancer. Cochrane Database Syst Rev 2009;CD001990.

2 Micke P, Faldum A, Metz T, Beeh KM, Bittinger F, Hengstler JG, Buhl R: Staging small cell lung cancer: Veterans Administration Lung Study Group versus International Association for the Study of Lung Cancer – what limits limited disease? Lung Cancer 2002;3: 271–276.

3 Thatcher N, Faivre-Finn C, Lorigan P: Management of small-cell lung cancer. Ann Oncol 2005;16(suppl 2): ii235–239.

4 Takada M, Fukuoka M, Kawahara M, Sugiura T, Yokoyama A, Yokota S, Nishiwaki Y, Watanabe K, Noda K, Tamura T, Fukuda H, Saijo N: Phase III study of concurrent versus sequential thoracic radiotherapy in combination with cisplatin and etoposide for limited-stage small-cell lung cancer: results of the Japan Clinical Oncology Group Study 9104. J Clin Oncol 2002;1:3054–3060.

5 Sundstrøm S, Bremnes RM, Kaasa S, Aasebø U, Hatlevoll R, Dahle R, Boye N, Wang M, Vigander T, Vilsvik J, Skovlund E, Hannisdal E, Aamdal S; Norwegian Lung Cancer Study Group: Cisplatin and etoposide regimen is superior to cyclophosphamide, epirubicin, and vincristine regimen in small-cell lung cancer: results from a randomized phase III trial with 5 years' follow-up. J Clin Oncol 2002;24:4665–4672.

6 Yip D, Harper PG: Predictive and prognostic factors in small cell lung cancer: current status. Lung Cancer 2000;3:173–185.

7 Fischer BM, Mortensen Jr: The future in diagnosis and staging of lung cancer: positron emission tomography. Respiration 2006;73:267–276.

8 Oven Ustaalioglu BB, Gumus M, Bilici A, Seker M, Ustaalioglu R, Kefeli U, Salepci T, Canpolat N, Mayadagli A, Dogusoy I: Is there a cut-off value for standardized uptake values in positron emission tomography for predicting response to treatment and survival in patients with advanced non-small cell lung cancer? Single center experience. J BUON 2010;3:529–536.

9 Paesmans M, Sculier JP, Lecomte J, Thiriaux J, Libert P, Sergysels R, Bureau G, Dabouis G, Van Cutsem O, Mommen P, Ninane V, Klastersky J: Prognostic factors for patients with small cell lung carcinoma: analysis of a series of 763 patients included in 4 consecutive prospective trials with a minimum follow-up of 5 years. Cancer 2000;3:523–533.

10 Sculier JP, Chansky K, Crowley JJ, Van Meerbeeck J, Goldstraw P; International Staging Committee and Participating Institutions: The impact of additional prognostic factors on survival and their relationship with the anatomical extent of disease expressed by the 6th Edition of the TNM Classification of Malignant Tumors and the proposals for the 7th Edition. J Thorac Oncol 2008 5:457–466.

11 Oh JR, Seo JH, Chong A, Min JJ, Song HC, Kim YC, Bom HS: Whole-body metabolic tumour volume of 18F-FDG PET/CT improves the prediction of prognosis in small cell lung cancer. Eur J Nucl Med Mol Imaging 2012;6:925–935.

12 Lee YJ, Cho A, Cho BC, Yun M, Kim SK, Chang J, Moon JW, Park IK, Choi HJ, Kim JH: High tumor metabolic activity as measured by fluorodeoxyglucose positron emission tomography is associated with poor prognosis in limited and extensive stage small-cell lung cancer. Clin Cancer Res 2009;7:2426–2432.

13 Zhu D, Ma T, Niu Z, Zheng J, Han A, Zhao S, Yu J: Prognostic significance of metabolic parameters measured by (18)F-fluorodeoxyglucose positron emission tomography/computed tomography in patients with small cell lung cancer. Lung Cancer 2011;3:332–337.

14 Pandit N, Gonen M, Krug L, Larson SM: Prognostic value of (18F)FDG-PET imaging in small cell lung cancer. Eur J Nucl Med Mol Imaging 2003;1:78–84.

15 Blum R, MacManus MP, Rischin D, Michael M, Ball D, Hicks RJ: Impact of position emission tomography on the management of patients with small-cell lung cancer: preliminary experience. Am J Clin Oncol 2004;27: 164–171.

16 Arslan N, Tuncel M, Kuzhan O, Alagoz E, Budakoglu B, Ozet A, Ozguven MA: Evaluation of outcome prediction and disease extension by quantitative 2-deoxy-2-(18F) fluoro-D-glucose with positron emission tomography in patients with small cell lung cancer. Ann Nucl Med 2011;6:406–413.

17 Ohri N, Duan F, Machtay M, Gorelick JJ, Snyder BS, Alavi A, Siegel BA, Johnson DW, Bradley JD, DeNittis A, Werner-Wasik M: Pretreatment FDG-PET metrics in stage III non-small cell lung cancer: ACRIN 6668/ RTOG 0235. J Natl Cancer Inst 2015;16:4107–4114.

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