Different toxicity rating patients and physicians in randomized phase III PCI vs obs stage III NSCLC
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investigated if the MTHFR C677T polymorphism modulates the risk of developing breast, rectal and lung cancer.

Material and Methods
Genotyping was performed by PCR-RFLP method on a sample of 103 patients diagnosed with histologically proven cancer (52 rectal, 26 lung, and 25 breast) and 186 healthy controls, respectively (60, 101, 25).

Results
Analyses of affected and controls show that homozygote groups in lung and rectal localization, it was 65.38% in patients and 45.5% in control group in lung localization, 48% in patients with rectal localization and 55% in control group. In breast localization the distribution of the CC, CT and TT genotypes corresponded respectively to the proportions 40%, 55% and 5%. The odds ratio for the TT and CT genotypes was 1.42 (95% CI = 0.42-4.85) and the odds ratio for the TT and CT genotypes was 1.26 (95% CI = 0.07-21.49) and 0.69 (95% CI 0.21-2.29. We also demonstrated a modest increase in the risk of breast cancer in individuals with TT genotype compared to the general population (OR = 1.26; 95% CI = 0.07-21.49).

Conclusion
Despite the low rate of enrolled population in our study, we can conclude based on the results of our study that a significant association between lung, rectal cancer and C677T polymorphism might exist.

EP-1365  F-FDG-PET/CT metabolic features as prognostic and predictive factors in lung tumors undergoing SBRT
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Purpose or Objective
Stereotactic body radiation therapy (SBRT) is an effective treatment for patients with lung tumors (both primitive and secondary) who are not candidates for surgery. For patients treated with SBRT, there are relatively few studies that examined predictors of regional and/or distant progression and agreement among them is poor. As several studies have shown that the analysis of baseline F-FDG PET/CT features have predictive and prognostic significances in several types of cancers, including oropharyngeal, esophageal and sarcoma, we hypothesized that imaging-based features could identify patients with lung tumors treated with SBRT who are at highest risk for progression. The aim of this study is to assess the prognostic impact and predictive role of the maximum standardized uptake value (SUV max), the metabolic tumor volume (MTV), the total lesion glycolysis (TLG) and SUV max lesion/SUVmax liver (rPET) and their correlation with local control, overall survival (OS) and progression-free survival (PFS) in patients treated with stereotactic body radiation therapy (SBRT) for primitive or secondary lung tumors undergoing pretreatment [F-18 fluoro- D-glucose-positron emission tomography/ computed tomography (F-FDG PET/CT) imaging.

Material and Methods
Between September 2009 to December 2016, 70 patients with 85 medically inoperable lung tumors were treated with SBRT and underwent a F-FDG PET/CT before the treatment. Median age was 73 years. SBRT schedules were 60/55/50 Gy in 5 fractions or 54 Gy in 3 fractions. The effects of clinical-pathological factors including primary tumor SUV max, MTV, TLG and rPET on OS, PFS and local control (LC) were evaluated. Kaplan-Meier survival curves were produced and compared with the log-rank test.

Results
With a median follow-up for the population of 26 months, the median OS and PFS were 39.7 and 30.1 months, respectively. The 12- and 24-months OS for the entire cohort were 94% and 76%, respectively, with a 12- and 24-months PFS of 81% and 60%, respectively. On univariate analysis SUV max of tumor, (cut-off: 0.611) (figure). Multivariate Cox analysis showed that non analysed parameters were related to OS [(SUVmax p: 0.446); TLG ( p: 0.294); MTV (p:0.568)] and PFS[(SUVmax p: 0.648); TLG (p: 0.414); MTV (p: 0.981)]. Wilcoxon test showed that no correlation was observed between SUVmax (p: 0.6988), MTV ( p: 0.6761), TLG (p: 0.8495), SUVmax tumor/SUV max liver ratio (rPET) and local control.

Conclusion
The prognostic value of SUVmax and other PET related factors in patients with lung tumors remains controversial and many reports have indicated that it has positive or negative associations with outcome. In our study no significant association was found between SUVmax, MTV, TLG and rPET and clinical outcomes such as OS, PFS or LC in patients affected by lung tumors treated with SBRT.

EP-1366  Different toxicity rating patients and physicians in randomized phase III PCI vs obs stage III NSCLC
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Purpose or Objective
The primary purpose of the study was to investigate if the MTHFR C677T polymorphism modulates the risk of developing breast, rectal and lung cancer.
 Patients reported AE: dizziness, headache, hypersomnia, memory impairment and vomiting. For patients, only differences between the adverse events (AE) reporting between patients and physicians. PROs should be part of outcome measurements.

**Purpose or Objective**

The NVALT-11/ DLCRG-02 randomized trial showed that PCI reduced the incidence of symptomatic brain metastases; secondary endpoints: OS, AE reported by patients and physicians, QoL.

**Results**

175 patients were randomized, 87 PCI and 88 observation in radically treated stage III NSCLC. Primary endpoint: incidence of symptomatic brain metastases; secondary endpoints: OS, AE reported by patients and physicians, QoL.

**Differences in AE reporting by patients and physicians:** Table 1. Reported by the patient but not by the physician: Memory impairment in 40/88 (45 %) and in 27/87 (31 %); fatigue in 40/88 (45 %) and in 27/87 (31 %); headache in 29/88 (33 %) and 28/87 (32 %) in the observation and PCI arms, respectively.

**Conclusion**

Many AEs were only reported by the patient; the results also may suggest physician bias in AE reporting. PROs should be part of outcome measurements.

### EP-1367 Cardiovascular disease and survival in lung cancer: a multicenter prospective assessment

**Purpose or Objective**

Purpose or Objective The NVALT-11/ DLCRG-02 randomized trial showed that PCI reduced the incidence of symptomatic brain metastases; secondary endpoints: OS, AE reported by patients and physicians, QoL.

**Results**

175 patients were randomized, 87 PCI and 88 observation in radically treated stage III NSCLC. Primary endpoint: incidence of symptomatic brain metastases; secondary endpoints: OS, AE reported by patients and physicians, QoL.

**Differences in AE reporting by patients and physicians:** Table 1. Reported by the patient but not by the physician: Memory impairment in 40/88 (45 %) and in 27/87 (31 %); fatigue in 40/88 (45 %) and in 27/87 (31 %); headache in 29/88 (33 %) and 28/87 (32 %) in the observation and PCI arms, respectively.

**Conclusion**

Many AEs were only reported by the patient; the results also may suggest physician bias in AE reporting. PROs should be part of outcome measurements.

### EP-1368 Lung cancer 3D-CRT: Evaluation of V5 constraint compliance and incidence of radiation pneumonitis

**Purpose or Objective**

Purpose or Objective Radiation-induced pneumonitis (RP) is a serious complication after lung cancer radiotherapy. Several studies have seen that keeping V5<60-65% plays a very important role in preventing this unwanted effect and has been established as predictive of RP incidence.

**Results**

We retrospectively selected 114 patients who underwent thoracic RT; and 50 (15%) patients underwent surgery. Clinical-pathological and therapeutic characteristics were assessed for overall survival (OS) as primary endpoint using univariate and multivariate COX regression analysis.

**Conclusion**

Self-reported CVD is associated with worse OS and higher risk of distant metastasis in NSCLC patients. Chronic inflammation associated with CVD seems to be a major pathophysiologic factor in the development of distant metastasis. Our genetic constitution may be crucial for the susceptibility of a distinct inflammation, a task for future studies.