Stronger conclusions should be established in this matter in higher levels of SUVmax and bigger tumour volumes are found cannot predict the tumour response to CRT. Nevertheless, Conclusion:

p=0.37

had better overall survival compared to non-responders, vs 20.73, (p=0.35); nodal SUVmax or tumour SUVmax (21.95 ± 6.71 vs 7.56, p=0.012) or staging (6.71 vs 7.56, p=0.23). Histopathological responders had better overall survival compared to non-responders, however this was not statistically significant (617 vs 269 days, p=0.37).

Conclusion: In our cohort, 18F-FDG-PET/CT parameters cannot predict the tumour response to CRT. Nevertheless, higher levels of SUVmax and bigger tumour volumes are found in the non-responders group and also worse overall survival. Stronger conclusions should be established in this matter in order to select patients for an organ-preservation safely.

Purpose or Objective: The approach to patients with lung metastasis from primary colon-rectal cancer is based on systemic therapy and the role of stereotactic body radiotherapy (SBRT) is still to be investigated. The present work aims to study the impact of SBRT in oligometastatic patients with lung metastasis from colon-rectal cancer.

Material and Methods: From May 2010 to March 2015, 33 consecutive patients (median age 66 years, range 31-88) with lung metastasis from colon-rectal cancer were treated with SBRT. All patients were treated using Image Guided Radiotherapy (IGRT) and stratified according to K-RAS and B-RAF genotype. The systemic progression free survival and local control were the primary and secondary endpoint evaluated respectively.

Results: A total of 56 active lesions were treated. After a median follow-up of 12.6 months, median OS was 10.5 months. The radiotherapy dose delivered and the schedule adopted were 24-27 Gy as a single fraction and 27-42 Gy/3 fractions. Nineteen out of 33 patients were affected by rectal cancer while 14 patients by colon cancer. Median Planning Target Volume value was 21.45 cc (range 6-156). Mean local relapse was recorded in 23 lesions (41.1%) at a median interval of 19.3 months (range 5-37). By the way, 23 out 33 patients (69.7%) experienced systemic progression after a mean time of 12.6 months (1-24) from SBRT. No differences of local or systemic control were observed considering K-RAS and B-RAS genotype. Severe toxicity were not recorded.

Conclusion: The results of this study suggest that SBRT could represent a safe and valid approach to oligometastatic patients with lung metastasis from colon-rectal cancer. However, further studies are needed in order to better characterize patients potentially suitable for SBRT.

Purpose or Objective: The purpose of our study is to report on the acute toxicity and response to treatment in patients affected by squamous cell anal carcinoma (SCAC) that underwent tomotherapy (TO) at 2 institutions.

Material and Methods: A cohort of 39 patients affected by SCAC and treated with TO between December 2009 and July 2015 was retrospectively analyzed. Concurrent chemotherapy (CT) was always administered except in patients unfit for intensive therapy due to comorbidity and/or with early stage disease (T1-T2NO). The choice of CT regimen was left to the discretion of the treating institution, as well as the IMRT schedule. The dose/fractionation prescribed to PTV1 (high-risk volume), PTV2 (intermediate-risk volume) and PTV3 (low-risk volume) ranged between 66-50 Gy, 50.4-45 Gy and 46.2 - 36 Gy, respectively, at a corresponding dose per fraction range of 2.2 - 1.8 Gy for PTV1, 2 - 1.67 Gy for PTV2, and 1.65 - 1.5 Gy for PTV3, delivered in a range of 25-33 daily fractions. Acute toxicity was scored according to NCI - CTCAE v.4. Response was assessed at 12 weeks after the end of treatment via digital rectal exam and anoscope.