The amount of liver involved in the disease was not associated with the outcome.

Conclusions: FDG-PET/CT was able to separate responders from non-responders about 6 weeks after RE when using PERCIST criteria. Although MTV may provide a baseline prognostic factor, in our experience, the MTV obtained from a manual contouring resulted to be inappropriate to predict the therapeutic response. More sophisticated segmentation methods should be analysed to assess the MTV usefulness.

Overall, contrarily to CT, FDG-PET/CT about 6 weeks after the treatment can provide early response and survival.

PO-0768
SBRT for CRC liver metastases: prognostic factors affecting LC and OS
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Purpose/Objective: SBRT for liver metastases has shown in many reports a high rates of Local Control (LC), mild toxicity, and a positive trend on overall survival (OS). However, many questions about the prognostic factors that can influence LC and OS are still open. In this study we analyzed our cohort of patients treated for CRC liver metastases by SBRT.

Materials and Methods: Between April 2006 and February 2014, 89 pts with 163 colorectal metastases were treated by SBRT. Median age was 65 ys , with KPS >70. 45% of them had synchronous mets and in 79% a primary tumor was controlled. 47 patient (52%) were treated to a single lesion and 48% pts to two to five mets. 85% of pts received previous chemotherapy. SBRT was delivered by 6MV Linac using beam modulator (VMAT). Median GTV volume was 20 cc (0.3-306 cc). Dose delivered in 3 fx was prescribed to the 67% isodose line in 82% of lesions and to the isocenter in 17%. In 81.5% of lesions the relative BED 10 was > 100 Gy. Dose constraint for healthy liver was Dmean < 15 Gy. Set-up and isocenter position was controlled before each fx using CBCT, gold markers as target surrogate were implanted in 78 % of pts. Respiratory motion was controlled by active breathing coordinator, breath hold technique or delineating an ITV of inhale and exhale CT data in 62%, 30% and 8% respectively. The response was evaluated 60 days after SBRT by CT and PET scan and every 3months successively. Toxicity was assessed by CTCAE score.

Results: With a median FU of 16.5 (range 5-75) months, the median survival was 44.4 months. 23 Pts are still alive(26%). LC, defined as no evidence of tumor regrowth within the treated lesion, was reached in 84% of lesions. Mainly relapses occurred outside the treated field: in 23% (21/89) of pts the ‘in field’ relapses occurred in the presence of ‘out of field’ progression while single only patient relapsed in field only. 47 (53%) through the liver and 49 (55%)outside. 1 y and 2 ys LC was respectively 83% and 69%. On univariate analysis, better LC was statistically related to the use of Gold Fiducials (p< 0.001), Breath Control (p=0.013), BED 10 >100Gy (p< 0.001) and prescription to 67% isodose vs isocenter (p <0.001), GTV volume < 14 cc (p=0.029). 1 y and 2 ys OS were 88% and 45% respectively. The OS rate seems not to be related to age, the number of liver lesions at diagnosis, mets Synchronous, use of chemotherapy while better OS was related to single lesions vs more than one treated (p< 0.041) by SBRT. Furthermore improved OS was associated with no relapse through the liver, 1y and 2 ys OS was 88% and 45% respectively for no recurrence vs 64% and 23% for hepatic relapse (p<0.005).Acute toxicity was only gastrointestinal in 11% of Pts G1 and in 4% G2.

PO-0769
Adequacy of pain management during radiotherapy in advanced head and neck cancers
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Purpose/Objective: Head and neck cancer (HNC) is the most common cancer in developing countries. Pain is the commonest symptom in HNC patients and it may be due to the tumour and/or cancer treatment. Previous studies have shown these patients to be at risk for inadequate pain management. This study evaluates pain and the adequacy of analgesic management during radiation.

Materials and Methods: 60 patients of locally advanced head and neck cancers treated primarily with conventional chemoradiation or adjuvant radiation +/- concomitant chemotherapy following surgery (60-66 Gy / 30-33 # / 6 - 6.5 weeks) were included in the study. Patients completed the Brief Pain Inventory (BPI) Questionnaire at time of initial visit, 3 weeks of CCRT/RT, at the end of treatment and at 3 months of follow-up. Pain intensity scores were derived from the BPI Questionnaire.

Pain intensity scores were: 1-3 - Mild, 4-7 - Moderate, 8-10 - Severe. Analgesics prescribed were derived from WHO’s ‘Analgesic Ladder’ approach to cancer pain. Analgesic scores were: NSAIDS and Adjuvants - 1, Mild opioids - 2, Strong opioids - 3.

The Pain Management Index (PMI) is a simple index linking the usual severity of cancer pain with the category of