Conclusion: these favorable results in large volume liver metastases from low grade NET, although derived from only two anecdotal cases, give support to the concept that the outcome of SBRT is relatively independent from tumor type, being mainly mediated by an ablative effect. Also they represent a typical example showing how repeat liver SBRT may lead to a a significant delay in disease progression although without achieving a definitive cure.

EP-1271
Stereotactic body radiation therapy for malignant tumours of the pancreas
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Purpose or Objective: To review stereotactic body radiation therapy (SBRT) safety and local control utility in malignant tumor of the pancreas based in a single center experience since February 2014.

Material and Methods: A systematic review was done. Thirteen patients were treated with SBRT. Eleven patients had a primary pancreatic tumor and two patients had metastatic affection of the pancreas. In those patients with primary pancreatic cancer, four patients were treated with a radical intent, five as a part of a neoadjuvant treatment and four patients with a palliative intent. All of the treated tumors had a diameter bigger than 2 cm. At least 2 fiducials were located into the tumor, guided by endoscopic ultrasound. All the treatments included CT or PET-CT for GTV delineation, intensity-modulated radiation therapy (IMRT) and image-guided radiation therapy (IGRT) with intrafraction control of tumor motion with a Novalis Exactrac Adaptive Gating System. 50 Gy in 10 fractions were prescribed in eleven patient, one patient was treated with 35Gy in 5 fractions and one patient was treated with 40Gy in 10 fraction.

Results: Pancreatic SBRT was very well tolerated in our cohort of patients. No grade 3 or higher toxicity was observed. Only 3 patients developed grade 2 epigastric pain and/or grade 2 nausea/vomiting. The median patient age was 62 years old (range 36 - 86 years) and the median follow-up was 14 months (range 2 - 18 months). Five patients under went surgery after SBRT. The median overall survival was 14.5 months (range 2.4 - 18.2 months), with 65.3% survival at 6 months and 62% and 39% respectively. One-year LC was 62% and 39% respectively. One-year OS were 89%, 69 and 42%.

Conclusion: In our experience, gating SBRT for pancreatic tumor is a well-tolerated feasible treatment. Most patients are free from local progression, but overall survival remains poor. Prospective studies are needed to define the role of SBRT for pancreatic tumors.

Purpose or Objective: Stereotactic body radiotherapy (SBRT) in pancreatic cancer can be limited by its proximity to critical organs at risk (OAR) of the upper abdomen. In this study we evaluate the toxicity and efficacy of two different treatment approaches.

Material and Methods: Patients with recurrent or oligometastatic pancreas cancer were treated with SBRT. The planning target volume (PTV) was created through a 4 mm expansion of the internal target volume (ITV) based on a four dimensional CT (4D-CT). All patients were treated with intensity modulated radiation therapy (IMRT). In some cases we created a sub-volume, in order to reduce the risk of toxicity in critical adjacent OARs without compensating the whole PTV. This sub-volume was defined as a simultaneous integrated protection (SIP) PTV. The SIP consisted of the interface of the PTV with the planning risk volume (PRV) of a specific vulnerable structure at which we prescribed a pre-defined reduced dose.

Results: Between 2009 and 2014, 18 patients with 23 lesions were treated in our institution. Seven patients were treated for a local recurrence, nine were treated for oligometastases (liver, lymph nodes) and two patients were treated for both. Of these lesions 11 were treated with SIP and 12 were treated without SIP. The median follow up was 10.8 months (range 1.2-40.3 months). The freedom from local progression (FFLP) at 6 and 12 months was 90% and 84% respectively. The overall survival (OS) rates at 6 months and 12 months after SBRT were 77% and 54%, respectively. Two patients (11%) experienced grade >3 acute toxicity (mechanical ileus, gastrointestinal bleeding) and 2 patients (11%) experienced a grade >3 late toxicity (cholangitis, bleeding).

Conclusion: Local control and overall survival after SBRT in this high risk group of patients with pancreatic cancer were excellent despite of dose sacrifice in half of the patients when OARs were close to the PTV, with overall favourable toxicity.

EP-1273
Clinical results of stereotactic ablative radiotherapy in the treatment of liver metastases
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Purpose or Objective: To evaluate the efficacy and feasibility of stereotactic ablative radiotherapy (SBABR) in the treatment of liver metastases.

Material and Methods: We retrospectively analyzed patients with 1-2 secondary liver lesions treated with SABR. The total dose prescriptions were 30 Gy, 37.5 Gy and 45 Gy on three consecutive days in 42.8%, 22.8% and 34.4% of patients respectively. The dose was prescribed to the 80% isodose line covering the PTV. The primary endpoints were in field local control and toxicity; the secondary endpoint was survival rates.

Results: Between March 2007 and May 2015, 30 patients (17 males, 13 females) with 36 liver metastases were treated. We evaluated 78.6% of patients (30/38). The mean age was 66 years (range, 40-90 years). Twenty-five patients (83.3%) had a single hepatic lesion and the remaining 5 patients (16.7%) had multiple hepatic lesions. Twenty-five patients (64.5%) had extrahepatic stable disease. The most frequent sites of primary tumor were colorectal (58%) and breast (20%). The majority of the lesions treated (75.6%) had a diameter of less than 3 cm. With a median follow-up of 21 months (range 2.3-69.8 months) for all patients, “in field” local control was observed in 90% of patients. No patient developed a toxicity greater than grade 2 according to CTC scale v.4.02 and no radio-induced liver disease (RILD) was recorded. One-year LC and two-year LC were 62% and 39% respectively. One-year and two-year PFS were 46% and 25% (median, 11 months). One-year, two-year and three-year OS were 89%, 69 and 42%.
respectively, with a median survival time, calculated from the date of metastasis and last follow-up or death, of 29.8 months.

Conclusion: These data suggest that stereotactic ablative radiotherapy (SABR) is a safe, non-invasive and effective option in the treatment of liver metastases.

EP-1274
Prognostic factors of gastric cancer treated with adjuvant radiochemotherapy
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Purpose or Objective: The aim of this study was to identify the outcome and prognostic factors for patients with locally advanced gastric cancer (LAGC) treated with adjuvant radiochemotherapy, according Macdonald scheme.

Material and Methods: Between May 2004 and October 2014, a total of 106 patients, 70 men and 36 women, with locally advanced gastric cancer were treated in the University Hospital 12 de Octubre, Spain. The mean age was 57 years. The mean follow-up was 96.48 months. The most common tumor location was antrum (29.25%). The majority of tumors were T3 (52.83%) or T4 (22.64 %) and 86.79 % had nodal metastases, with an average of 8.24 nodes involved. Predominant histological subtype was diffuse (43.4%) and poorly differentiated (grade 3, 50%). Complete resection (R0) was achieved 84.91%, whereas microscopic residual disease (R1) was found in 13.21%. Survival was calculated by Kaplan-Meier and method and differences were assessed by the Log-rank test. Multivariate analysis was used Cox proportional hazards regression model.

Results: A total of 50 (47.16 %) patients relapsed; 16 (15.09%) locoregional, 13 (12.26%) peritoneal, 18 (16.98%) distant metastases and 3 (2.83%) unknown. The overall survival (OS), disease-free survival (DFS), locoregional failure-free survival (LFS) rates to three years were 48.75%, 46.27% and 76.72% respectively, with a median survival time, calculated from the date of surgery. Multivariate analyses were performed using R software (3.1.1, R Development Core Team 2010).

Conclusion: In univariate analysis, T stage (T1-T2), N negative stage and R0 resection also can be considered as independent prognostic negative stage and R0 resection (p<0.05). Complete R0 resection were associated with better survival (p<0.05) for OS and DFS.

EP-1276
Influence of pretreatment blood parameters on the outcome of gastric cancer patients
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Purpose or Objective: Activation of coagulation and fibrinolysis are found among gastric cancer patients. The ones with non-metastatic gastric cancer are at risk for thrombotic events due to the combined increase in fibrinogen plasma levels and thrombin formation. It could be associated with a higher risk of local invasion and might be important poor predictive and prognostic factor. In our study, we sought the associations between blood parameters and outcome

Material and Methods: The study examined eighty-nine patients with biopsy-proven, operable gastric adenocarcinoma, with no evidence of distant metastases. Pre-operative fibrinogen, PT, APTT and INR levels were measured before surgery. Complete blood count were also collected before initiation of therapy. All patients underwent surgery as a primary treatment. The survival function was computed using Kaplan-Meier method. The overall survival (OS), Diseases-free survival (DFS), time to distant metastases (DM) and locoregional control (LRC) were calculated from the date of surgery. Multivariate analyses and characteristic (ROC) have been done.

Results: In Multivariate Cox analysis higher level of WBC was associated with worse local control (p=0.0024), and shorter overall survival (p=0.0035). Shorter Prothrombin Time was correlated with better overall survival (p=0.0280). Higher Fibrinogen level has caused better local control (p=0.0280).

Conclusion: The level of White Blood Cells, Fibrinogen and Prothrombin Time were found to be useful prognostic factor which influenced overall survival and local control. However, further prospective investigations are necessary to assess the predictive value of those factors.

Purpose or Objective: To evaluate the feasibility, efficacy and toxicity of robotic SBRT for the treatment of unresectable hepatic oligometastases.

Material and Methods: Between 09/2010 and 01/2013, 15 consecutive patients (12 female, 3 male, median age at treatment: 70.5, range: 57-85 years) with up to 3 synchronous or metachronous hepatic oligometastases were referred for Cyberknife treatment (Accuray Incorporated, Sunnyvale, CA) at our center. In order to enable tumor tracking, gold fiducial markers were inserted around the lesion 2 weeks prior to each treatment. The treatment was delivered using the Synchrony Respiratory Tracking System to continuously track fiducial position and adjust for respiratory motion during treatment. Treatment planning was performed using the Multplan TPS (v4.6, Accuray) with Raytracing algorithm, and was retrospectively recalculated using a Monte Carlo dose calculation algorithm (v5.1). The primary endpoint of this study was local control (LC), assessed with either contrast enhanced spiral CT or MRI. Secondary endpoints were liver and distant progression free-survival (liver/PFS and DFS), overall survival (OS) and treatment toxicity, evaluated using the Common Terminology Criteria for Adverse Events v4.0. (Institute NC, NIH publication 2009).

Statistical analysis was performed using R software (3.1.1, R Development Core Team 2010).

Results: A total of 20 metastatic lesions were treated from primary colorectal (7), breast (7), unknown primary (3), melanoma (2) and stomach (1) cancer. The mean GTV and PTV volumes were 23.8cc (Standard deviation (SD):23) and 74.5cc (SD:45.3) respectively. All treatments were delivered 3x/week in a median three fractions (range: 3-6) to a median dose of 45 Gy (range: 30-45), prescribed to the 80% isodose line. This corresponds to an equivalent 2-Gy dose of 93.75Gy,