Conclusion: In our cohort, IFRT did not result to be associated to a PFS or OS benefit vs CT alone in the overall population. IFRT seemed to provide a survival benefit at 3 and 5 years compared to CT alone (92.3% vs 61.9% and 79.1% vs 51.6%) in patients with stage I-II disease at relapse and with persistent disease prior to ASCT. A larger sample size is needed to further explore the effect of IFRT in this particular setting.

PV-0280
Adjuvant radiotherapy in abdominal desmoplastic small round cell tumor: analysis of 107 patients
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Purpose or Objective: Desmoplastic small round cell tumor (DSRCT) is a rare peritoneal tumor affecting predominantly children and young adult Caucasian males with a high rate of local failure after surgery. We performed a multicentric retrospective study to identify the prognostic impact of adjuvant abdominal radiotherapy.

Material and Methods: All patients treated for primary abdominal DSRCT in 8 French centers from 1991 to 2014 were included. Patients were retrospectively staged into 3 groups: group A treated with adjuvant radiotherapy (RT) after cytoreductive surgery, group B without RT after cytoreductive surgery and group C by exclusive chemotherapy. Peritoneal progression-free survival (PPFS), progression-free survival (PFS) and overall survival (OS) were evaluated. We also performed a direct comparison between group A and B to evaluate RT after cytoreductive surgery. RT was also evaluated according to completeness of surgery: complete cytoreductive surgery (CCS) or incomplete cytoreductive surgery (ICS).

Results: Thirty-seven (35.9%), thirty-six (34.9%) and thirty-six (34.9%) patients were included in group A, B and C, respectively. Median age was 61.2% (41.0-76.0), 37.6% (22.0-53.1), and 17.3% (6.3-32.8) for group A, B and C, respectively. OS, PPFS and PFS differed significantly between the 3 groups (p<0.001; p<0.001 and p<0.001, respectively). OS and PPFS were higher in group A (RT group) compared to group B (no RT group) (p=0.045 and p=0.006, respectively). Three-year PPFS was 23.8% (10.3-40.4) for group A and 12.51% (4.0-26.2) for group B. After CCS, RT improved PPFS (p=0.024) but differences in OS and PFS were not significant (p=0.46 and p=0.30, respectively). After ICS, RT improved OS (p=0.044). A trend of PPFS and PFS increase was observed but the difference was not statistically significant (p=0.073 and p=0.076).

Conclusion: Adjuvant radiotherapy as part of multimodal treatment seems to confer oncological benefits for patients treated for abdominal DSRCT after cytoreductive surgery and perioperative chemotherapy. This study is the largest series evaluating DSRCT treatment and the first of its kind comparing patients who received RT after cytoreductive surgery with patients who did not.

PV-0281
Adjuvant radiotherapy in spinal cord decompression: a phase III trial
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Purpose or Objective: To compare Quality of Life (QoL) outcomes in patients (pts) with Malignant Spinal Cord Compression (MSCC) not proceeding with surgical decompression and treated by External Beam Radiation Therapy (EBRT) with one of two Fractionation Schedules (FS).

Material and Methods: ICRG 05-03 was an ICH-GCP compliant prospective (1.1) randomised non-inferiority phase III trial comparing two FS: arm 1 (control): 20Gy/5 Fractions (4Gy/1#) vs. arm 2 (experimental): 10Gy/1#, with 80% power, 5% significant level and 0.4 non-inferiority margin. While the primary end point of this trial (previously presented (ASTRO 2014)) was change in mobility at 5 weeks (wks), the current focus is on a secondary endpoint, QoL (EORTC QLQ-C30 questionnaire).

Results: From 2006 to 2014, 5 institutions accrued 115 eligible pts (2 non-eligible pts, no treatment allocation violation). 70 pts with QoL data at 5 wks were evaluable. Baseline characteristics were balanced between arms [V1: 30:40, median age: 69 (range: 30-87)]. Analysis showed a statistically significant benefit of radiotherapy (RT) for ‘Pain interfered with daily activities’ but not for Overall QoL. There was no statistically significant benefit between arms for either: 1. Overall QoL (mean change from pre-treatment -0.16 in arm 1 vs. -0.21 in arm 2; 95% CI: -0.31 to -0.01; p = 0.001); 2. Pain interfered with daily activities (mean change: -0.57 in arm 1 vs. -0.67 in arm 2; 95% CI: -0.79 to -0.45; p = 0.031). A non-planned exploratory regression analysis checked for independent prognostic factors for less pain at 5 wks. Multiple regression analysis revealed baseline pain as the strongest unique and statistically significant contributor to pain at 5 wks (beta = -0.63; p=0.002). Exploratory analyses were also conducted to characterise pts dying at >5 weeks, who might not benefit from RT. Primary malignancy (Chi-square test: X2 (3, n=106) = 15.6, p = 0.001, phi = 0.38) and initial mobility status (Chi-square test, X2 (2, n=106) = 11.0, p = 0.004, phi = 0.32.) were found to be associated with a life expectancy <5 wks. 67% of lung and 13% of breast cancer pts died before 5 wks, as did 49% of bed-bound and 15% of pts who could walk unaided.

Conclusion: With respect to QoL, primary RT significantly improves the pain related variables used in the trial, with 10Gy/1# FS being at least equivalent to 20Gy/5#. Baseline pain is the most significant independent prognostic factor for less pain at 5 wks. Tumour site and mobility should be considered when offering RT treatment to similar pts.