F. Calvo
EBRT treatment, non-radical resection, and tumor fragmentation.
On multivariate analysis, integrated EBRT treatment for the pelvic recurrence rescue (p=0.003), and had revealed worse LRC for those patients who did not received integrated electrons for locally recurrent rectal cancer.

External-beam radiation therapy, surgery and intraoperative electron-beam radiation therapy [IOERT (10-15 Gy)] to the pelvic recurrence tumor bed. 35 (43%) of these patients also received EBRT (30.6-50.4 Gy).

Materials and Methods: From January 1995 to December 2011, 60 patients with colorectal cancer [cT3 19.0%, p=0.02] and not receiving EBRT (5-year LRC= 56.2% vs. 32.0%, p=0.02) were at a significantly higher risk of LR recurrence. Patients without tumor fragmentation, non-metastatic lymph nodes, absence of perineural invasion and age ≥ 55 had a lower risk of LR relapse. We observed on multivariate analysis that margin status (R1 resection), EBRT at the time of pelvic recurrence, no tumor fragmentation, and non-lymph node metastasis retained significance with regard to LR relapse.

Conclusions: EBRT treatment integrated for rescue, resection radiodensity, and not involved fragmented resection specimens are associated with improved LRC in patients with locally recurrent rectal cancer. Additionaly tumor fragmentation could be compensated by EBRT. Present results suggest that a significant group of patients with oligorrecurent pelvic disease may benefit from EBRT treatment integrated with extended surgery and IOERT.

Purpose/Objective: To analyze prognostic factors associated with survival in patients after intensified surgical-rescue of oligorrecurent pelvic cancer, particularly the influence of external beam radiation therapy (EBRT).

Materials and Methods: From January 1995 to December 2011, 81 patients [ colorectal (46%); gynecologic (26%); retroperitoneal sarcoma (18%)] underwent extended surgery [multigtan (58%), bone (23%), vascular (9%), soft tissue (43%)] and intraoperative electron-beam radiation therapy [IOERT (10-15 Gy)] to the pelvic recurrence tumor bed. 35 (43%) of these patients also received EBRT (30.6-50.4 Gy).

Survival outcomes were estimated using the Kaplan-Meier method, and risk factors were identified by univariate and multivariate analyses.

Results: Median follow-up was 34 months (3-189 months), and the 1-, 3-, and 5-year rates of locoregional control (LRC) were 83%, 53%, and 41%, respectively. Univariate Cox proportional hazard analysis revealed worse LRC for those patients who did not receive integrated EBRT treatment for the pelvic recurrence rescue (p=0.003), and had non-radical resection (p=0.01). On multivariate analysis, integrated EBRT treatment, non-radical resection, and tumor fragmentation retained significance (p=0.002, p=0.004, and p=0.05, respectively).

Conclusions: EBRT treatment integrated for rescue, radical resection, and absence of tumor fragmentation are associated with improved LRC in patients with oligorrecurent pelvic cancer. Present results suggest that patients with oligorrecurrent pelvic disease may benefit from EBRT treatment integrated with extended surgery and IOERT.

Purpose/Objective: To analyze prognostic factors associated with survival in patients after intraoperative electrons containing resective surgical rescue of locally recurrent rectal cancer (LRRC), particularly the influence of an integrated component of external beam radiation therapy (EBRT).

Materials and Methods: From January 1995 to December 2011, 60 patients with pelvic recurrence from rectal initial cancer primaries underwent extended surgery [n=38; multigtan (43%), bone (28%), soft tissue (38%)] or non-extended (n=22) surgical resection, including a component of intraoperative electron-beam radiation therapy (IOERT) to the pelvic recurrence tumor bed. Twenty-eight (47%) of these patients were amenable and also received EBRT (range, 30.6-50.4 Gy).

Survival outcomes were estimated using the Kaplan-Meier method, and risk factors were identified by univariate and multivariate analyses.

Purpose/Objective: To analyze prognostic factors associated with survival in patients after intraoperative electrons containing resective surgical rescue of locally recurrent rectal cancer (LRRC), particularly the influence of an integrated component of external beam radiation therapy (EBRT).

Materials and Methods: From January 1995 to December 2011, 60 patients with pelvic recurrence from rectal initial cancer primaries underwent extended surgery [n=38; multigtan (43%), bone (28%), soft tissue (38%)] or non-extended (n=22) surgical resection, including a component of intraoperative electron-beam radiation therapy (IOERT) to the pelvic recurrence tumor bed. Twenty-eight (47%) of these patients were amenable and also received EBRT (range, 30.6-50.4 Gy).

Survival outcomes were estimated using the Kaplan-Meier method, and risk factors were identified by univariate and multivariate analyses.

Purpose/Objective: Patients with locally advanced rectal cancer are reported to have a dismal prognosis, challenging expert interdisciplinary management. The purpose of this study is to analyze the 15-years results of neoadjuvant-based multimodality treatment for locally advanced rectal cancer (LARC) with particular emphasis on intraoperative electron-beam radiotherapy (IOERT).

Materials and Methods: A total of 335 patients with LARC [cT3 93% and C+ 69%] who underwent multimodality treatment between 1995 and 2011 were studied. The basic treatment principle was preoperative(chemo)radiotherapy, intended radical surgery, IOERT and elective adjuvant chemotherapy (aCT). In uni- and multivariate analyses, risk factors for all loco-regional recurrence (LR), IOERT in-field recurrence (IFR) and IOERT out-field recurrence (OFR) were studied.

Results: Median follow-up for all patients was 52. 2 months (range, 1-184), the 5 year overall survival, disease-free survival, local control, in-field and out-field control rates were 73.6%, 69.4%, 94.4%, 97.0% and 93.4%, respectively. Synchronous local and distant metastatic disease was present in 16% of the patients that recurred. In multivariate analysis distal margin distance < 20 mm [HR 4.37 (1.68-11.34), p = 0.002] and no aCT (2.8.-27.44), p < 0.001; gender [HR 2.87 (1.10-7.46), p = 0.03], distal margin distance < 20 mm [HR 3.74 (1.79-7.82), p < 0.001], ypN+ [HR 2.53 (1.16-5.54), p = 0.02] and tumor histology grade 3 [HR 7.0 (2.8-17.56), p < 0.001]; Non-sphincter preserving surgery [HR 6.49 (1.58-26.32), p =0.009], CT4 [HR 6.24 (1.34-29.11), p=0.001], and tumor histology grade 3 [HR 8.5 (2.8-27), p = 0.001] were independent risk factors for LR recurrence [HR 2.87 (1.10-7.46), p = 0.03], distal margin distance < 20 mm [HR 4.37 (1.68-11.34), p = 0.002] and no aCT [HR 2.62(1-03-1.68), p = 0.04] were associated with increased risk of LR, IFR and OFR, respectively.

Conclusions: Overall oncological results after multimodality treatment of LARC are promising. The positive impact of intraoperative radiotherapy on pelvic control does justify the inclusion of this therapeutic modality in prospective multi-institutional trials. Cancer death with uncontrolled pelvic progression was 28%. Adding aCT to the treatment may contribute to improve LR rates.