23 of 29 patients of CRT group, at least 4 courses of CT were performed to 57% patients. Median overall survival, 1-year survival, and the rate of distant metastases at 1 year were 16 vs 11 (95% CI, 10-13) months, p=0.174; 69% (95% CI, 52%-86%) vs 46% (95% CI, 28%-64%), and 45% vs66%, p=0.301, respectively.

Conclusions: The trend towards better survival and lower rate of distant metastases for CRT comparing to CT in IALGC has been revealed. Further recruitment to this randomized study is warranted.

EP-1069
Local recurrence after rectal cancer treatment
D. Scepanovic
Purpose: To analyze local recurrence rates in our patients treated with preoperative radiotherapy with/without chemotherapy followed by TME or non TME surgery.

Materials and Methods: Two hundred fifty patients were enrolled between January 2004 and December 2010. Median age was 62 years (min=26, max=83). There were 83 female and 167 male. To be eligible, patients had to have histologically confirmed adenocarcinoma of the rectum, without evidence of distant metastases, and the inferior margin of the tumor had to be located not farther than 15 cm from the anal verge. Initially, 96% of patients had locally advanced stage of disease (T3/T4N0, any TN+). The patients assigned to preoperative radiotherapy (RT) with/without chemotherapy (5-fluorouracil or capecitabine). The patients assigned to preoperative RT received a total dose of 45-50.4 Gy in 25-28 fractions for 5 to 5.5 weeks followed by TME (118 pts) or non TME surgery (132 pts). The overall recurrence rate and the recurrence rates from different surgical approaches were calculated in our retrospective analysis.

Results: Median follow-up time was 48 months (range, 12 to 96 months). The cumulative proportion of local recurrence was 6.8% for all group of patients (0.8% in the group with TME and 6% in the group with non TME, p=0.0022, Fisher’s exact test). The 5 year DFS was 86% in the group of pts with TME and 71% in the group of pts with non TME (p=0.0025). The 5 year OS was 87% in the group of pts with TME and 77% in the group of pts with non TME (p=0.0012). There was very statistically significant difference between two groups of pts regarding DFS and OS.

Conclusions: Radiotherapy followed by TME has been shown to significantly reduce local recurrence rates in our patients. The strong criteria for identifying low risk group of pts for LR were: TME and negative resection margins (p=0.0009).

EP-1070
Outcomes of gastric lymphoma in elderly patients with reduced dose chemotherapy followed by IFRT.
V. Roshan1, P. Jagadesan1, P. Shukla1, P.K. Julka1, G.K. Rath1

Purpose/Objective: NHL arises often in extra nodal tissues. Gastrointestinal lymphoma represents the largest group of extra nodal lymphoma. It accounts for approximately 40 percent of them. The most frequent type of non-Hodgkin’s lymphoma is diffuse large-B-cell lymphoma. More than half of patients with diffuse large-B-cell lymphoma are over 60 years of age and the treatment of these elderly patients is a difficult challenge.

Materials and Methods: This study included 18 patients from 2008 to 2010 of age more than 60 years. All patients were subjected to six cycles of R CHOP followed by involved field radiotherapy. Radiation (45 Gy / 25F/5 weeks) was given with linear accelerator (energies used 6, 15 MV) by 3DCRT technique. With keeping in mind the toxicities associated with these drugs and the KPS of the patient, drug dosage was reduced. In most cases it was reduced by 20-25%.

Results: The completion rate of patients with this regimen was 100%. 5 year local control rate was 96%. Five year disease free survival was 74%. Grade III neurotoxicity was seen in one patient.

Conclusions: The concept of chemotherapy with reduced dosage followed by involved field radiotherapy is safe and effective in managing the Gastric lymphomas even in patients with associated geriatric co morbidities.

EP-1071
SIB method using VMAT-IMRT in preoperative chemoradiation for 16 patients with locally-advanced rectal cancer
H. Yamashita1, K. Nakagawa1, A. Haga1, A. Sakumi1, O. Mami1
1University of Tokyo Hospital, Departments of Radiology, Bunky-ku, Japan

Purpose/Objective: We are conducting a simultaneous integrated boost (SIB) method using volumetric modulated arc therapy (VMAT)-intensity- modulated radiotherapy (IMRT) in preoperative chemoradiation for locally-advanced rectal cancer. We report the initial experience in our department.

Materials and Methods: The object is rectal cancer with invasion to the Rb (rectum below the peritoneal reflection) in stages II-III. It started to register from January, 2012. It is finished in 16 cases up to one year. Six cycles of chemotherapy and chemoradiation (preoperative, capecitabine and cisplatin) was used. Radiation (45 Gy/25F, 55 Gy/25F) was performed with a linear accelerator (medium of energies 10-15 MV) with 3-DCRT technique. The dose administered in IMRT was 55 Gy/25F.

Results: The anal preservation rate was 13/16 case. In the grade by the histologic effect measurement criteria, grade 1 was 8 cases, grade 2 and 3 were 2 cases, and grade 3 (+ complete response) was 3 cases. The response rate was 47% and it was a good result. The frequency of diarrhea during radiotherapy was low.

Conclusions: It is a treatment method tolerated enough. It continues as this regimen.

EP-1072
EBRT after radical prostatectomy in localized prostate cancer: a 5-years single-institution experience
1Hospital Dr. Negrín, Radiation Oncology Dpt., Las Palmas de Gran Canaria, Spain
2Hospital Dr. Negrín, Medical Physics Dpt., Las Palmas de Gran Canaria, Spain

Purpose/Objective: To evaluate the series of patients treated with adjuvant- or salvage-External Beam Radiotherapy (EBRT) after radical prostatectomy (RP) in localized prostate cancer, and to revise the derivation criteria from the urology departments.

Materials and Methods: A total of 159 patients diagnosed from localized prostate cancer, remitted from 4 different urology departments, were included retrospectively in the study. Patients were treated with radical prostatectomy and posterior EBRT, and were recruited from 2007 to 2012. Clinical and pathological data were collected, including the risk group (before and after RT), parameters needed for the decision of treatment selection (adjuvant vs. rescue), time to androgen deprivation and dose administered in RT. Response to EBRT in terms of BDFS was also evaluated, defining biochemical failure as PSA level post-EBRT > 0.20 ng/ml.

Results: Mean Age: 60.9y (SD: 6.5). Pre-RP Risk Group: Low: 28 (17.6%), Intermediate: 69 (43.3%), High 27 (16.9%) and unknown 35 (22.0%). Post-RP Risk Group: Low: 5 (3.14%), intermediate: 38 (23.90%), high: 109 (68.55%) and unknown: 7 (4.40%). Margin status: Positive: 93 (58.49%), negative: 54 (33.96%) and unknown 12 (7.54%).
Perineural invasion pre-RP: Yes, 11 (6.92%); No, 108 (67.92%) and unknown, 40 (25.16%). Post-RP PSA: <0.20 ng/ml: 88 (55.34%), ≥ 0.20 ng/ml (Permanently Detectable-PSA or PD-PSA): 55 (34.59%) and unknown: 16 (10.06%). Initial EBRT Intention: Adjunct: 46 (28.93%), Salvage: 113 (71.07%). Corrected EBRT Intention: Adjunct: 46 (28.93%), Salvage: 113 (71.07%). EBRT Dose: 66 Gy: 24 (19.74%), 70 Gy: 79 (59.21%), 72-74 Gy: 45 (26.24%) and 76-78 Gy: 15 (10.06%). Corrected ADT Intention: ADT: 113 (71.07%). EBRT PSA > 0.20 ng/ml: 88 (55.34%), ≤ 0.048), moreover when patients with PD-PSA are analyzed (p = 0.048), EBRT PSA <1 ng/ml and 1 ng/ml: 56 (35.22%), unknown: 19 (11.95%). EBRT Dose: 66 Gy: 24 (19.74%), 70 Gy: 79 (59.21%), 72-74 Gy: 45 (26.24%), interrupted: 1 (0.63%). After a median-FU of 23 m, 101 patients (63.52%) remains free of biochemical progression, 16 patients (14.46%) have biochemical progression, 42 (26.42%) are lost. Perineural invasion pre-RP is a predictor of poor prognosis after post-RP EBRT (p = 0.012). There is a statistically significant benefit in BFFS when RT dose is >72 Gy (p = 0.008), moreover when patients with PD-PSA are analyzed (p = 0.010). The beneficial effect of increased dose is maintained when pre-EBRT PSA is <1 ng/ml (p = 0.008), but not when pre-EBRT PSA is ≥ 1 ng/ml (p = 0.139).

Conclusions: The majority of patients remitted to our Service for EBRT treatment, followed the criteria established for salvage-treatment. Perineural invasion before RT appeared as a bad prognosis factor. Doses over 72 Gy were associated to longer times to BFFS, especially in those patients with PD-PSA. This effect was observed even when PSE pre.EBRT is ≤ 1 ng/ml, but was not observed when that value was >1 ng/ml.

EP-1073 Initial experience with extreme hypofractionation (5.65 Gy x 8 in 3 weeks) in localised prostate cancer T. Macias Hernandez1, M. Blanco1, S. Garcia Repiso2, C. Cigarral Garcia1, P. Soria Carreras1, L.A. Perez Romasanta1 1University Hospital Salamanca, Radiation Oncology, Salamanca, Spain

Purpose/Objective: There are few published data regarding the safety, feasibility, efficacy and results of extreme hypofractionation (XHF) in prostate cancer. The purpose of this single-institution single-arm prospective study was to report the outcomes of a large series of patients treated with extreme hypofractionation in our institution.

Materials and Methods: Since 9-2012 seven NCCN intermediate-high prostate cancer patients were treated with helical tomotherapy. Exclusion criteria: Gleason score ≥ 8, patients with previous pelvic irradiation, distant metastases, and/or previous ADT. Doses over 72 Gy were associated to longer times to BFFS, with 23 patients with a PD-PSA (Post-RP PSA > 0.20 ng/ml). Androgenic deprivation: Yes 47 (29.56%), No: 112 (70.44%).

Results: Between 2003 and 2008, a median NTD2Gy of 85.1 Gy (70-93.4) was delivered as salvage RT to the prostate ± seminal vesicles (SV) with EBRT only (n=4) or EBRT + HDR-BT (n=10), adding ADT in 12 patients (median,12 months). Median delivered dose to the whole prostate ± SV was 45 Gy (44.72), with a boost delivered to the local relapse only, using HDR-BT or IMRT in 10 and 3 patients, respectively. One patient was treated to the whole prostate with 72 Gy in 2.25 Gy per fraction using IMRT. No Grade 3 or more acute GI or GU toxicities were observed during RT or 6-weeks after the end of RT. At a median FU of 70 months, (range, 48-121), the 5-year Grade ≥ 3 GU and GI toxicity-free survival figures were 70%±12.4% and 42.9±13.2%, respectively. Three patients presented with combined Grade 4 GU/GI toxicity consisting of rectal mucositis and recto-prostatic and/or recto-vesicourethral fistula formation. One patient presented with rectal necrosis requiring colostomy. Ten and 8 patients presented with biochemical and local relapse, respectively. The 5-yr bRFS, LRFS, DMFS and CSS were 35 ± 12.8, 50 ± 10.3, 43 ± 27, 45 ± 27, 35 ± 12.8, 50 ± 10.3, 43 ± 27, 45 ± 27, respectively. Conclusions: EBRT using 3D-CRT and/or IMRT + HDR BT as salvage option for patients with local recurrence after initial RT for prostate cancer may result in a relatively long-term biochemical and local control with a fairly high rate of severe radiation-induced side-effects. Alternative salvage treatment modalities should be first recommended, leaving reirradiation as an exceptional option only to be considered in very carefully selected cases.

EP-1075 Acute anorectal and urinary toxicities in prostate cancer patients treated with IMRT and 3D-CRT T. Akiba1, E. Kunieda1, R. Nagao1, T. Fukushima2, A. Kogawa1, T. Komatsu1, Y. Tamai1, Y. Oizumi1 1University of the University School of Medicine, Radiation Oncology, Isehara, Japan

Purpose/Objective: To compare acute urinary and anorectal toxicities in prostate cancer patients undergoing intensity modulated radiation therapy (IMRT) with those undergoing three dimensional conformal radiation therapy (3D-CRT).

Materials and Methods: Between April 2010 and March 2012, 129 consecutive patients who underwent definitive external beam radiation therapy for prostate cancer were evaluated. Patients were retrospectively assigned to two groups: IMRT (N = 53) and 3D-CRT (N = 76). Acute urinary and anorectal toxicities were investigated using Common Terminology Criteria for Adverse Events (CTCAE) version 4.0. IMRT was delivered with 74/37 fractions by the 7 field step-and-shoot technique; 3D-CRT was delivered with 70/35fractions by the static 4-6 multiple field technique. Acute toxicity was defined as the worst event within three months after completing radiation therapy. The two groups’ characteristics and treatment factors were compared by t-test and Chi-square or Fisher’s exact test, as appropriate. The acute toxicity grades between the groups were compared by Mann-Whitney U-test.

Results: Age, National Comprehensive Cancer Network (NCCN) risk groups, and total doses were significantly different between the two groups. There were no grade 3 or higher urinary or anorectal acute toxicities. Although there was no significant difference in urinary acute toxicity, there were significant differences for rectal mucositis (p = 0.002) and anal mucositis (p = 0.011) for acute anorectal toxicity between the two groups, with milder toxicity in the IMRT group.

Conclusions: Acute anorectal toxicity in prostate cancer patients treated with IMRT is significantly milder compared to those treated with 3D-CRT.