patients by the presence of 0-1 or 2-3 risk factor, the 2-year actuarial FFDP was 100% and 49% respectively (p<0.01, Fig 1).

Conclusion: Although with a small cohort and a limited follow-up, these results seem to suggest that radical dose RT to all localization of disease is a valid approach in osseous OPC patients in association with ADT, also considering the low toxicity profile. Our predictive model aiming at identifying which patients may benefit of this kind of treatment seems to show that the ideal candidate could be a previously operated patient, with a iPSA≤24.2 ng/ml and with only one bone metastasis.

EP-1348
Endoscopic evaluation of late rectal toxicity after radiotherapy in 597 prostate cancer patients

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Purpose or Objective: Late rectal toxicity (LRT) is one of the main limitations of external radiotherapy (RT) for prostate cancer (PC). Purpose of this study was to evaluate the impact of various parameters on LRT, in a large cohort of patients undergoing radical or adjuvant RT in a series of clinical trials.

Material and Methods: 597 patients were selected (median age: 70 years; range: 43-88; NCCN risk class: 59 low, 199 intermediate, 339 high). Impact on grade ≥2 (RTOG) LRT of a series of parameters was analysed: previous radical prostatectomy, RT technique, type and duration of any adjuvant hormone therapy, RT dose and fractionation, acute rectal toxicity. LRT free survival curves were estimated according to the Kaplan Meier method. Univariate analysis was performed using log-rank test. Multivariate analysis was performed using ‘Cox’s proportional hazard models’.

Results: Table 1 shows the results of the analysis. Overall, grade ≥2 LRT free survivals was respectively 89.5% and 84.9% at 2 and 5 years. At univariate analysis only acute rectal toxicity was significantly related to LRT (p<0.001) while there was a negative trend in patients receiving adjuvant hormone therapy, especially with LH-RH analogues. Multivariate analysis confirmed only the correlation between acute rectal toxicity and LRT (p: 0.006).

Table 1: Grade ≥2 late rectal toxicity free survival (%)

<table>
<thead>
<tr>
<th>Patient Acute</th>
<th>2-year</th>
<th>5-year</th>
<th>LRT free survival (log rank p)</th>
<th>Multivariate analysis (Cox p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precise R.P.</td>
<td>403</td>
<td>584</td>
<td>54.6</td>
<td>0.014</td>
</tr>
<tr>
<td>Technique</td>
<td>47</td>
<td>113</td>
<td>57.6</td>
<td>0.033</td>
</tr>
<tr>
<td>Dose</td>
<td>17</td>
<td>47.7</td>
<td>57.1</td>
<td>0.020</td>
</tr>
<tr>
<td>Acute toxicity</td>
<td>20</td>
<td>4.9</td>
<td>57.1</td>
<td>0.020</td>
</tr>
<tr>
<td>Grade</td>
<td>10.4</td>
<td>1.8</td>
<td>57.1</td>
<td>0.020</td>
</tr>
<tr>
<td>KSI</td>
<td>0</td>
<td>0</td>
<td>57.1</td>
<td>0.020</td>
</tr>
<tr>
<td>Total dose</td>
<td>102</td>
<td>27</td>
<td>57.1</td>
<td>0.020</td>
</tr>
</tbody>
</table>

Conclusion: The results of this analysis showed no correlation between treatment parameters and LRT. This unexpected result is likely to be related to the use of modulated RT techniques in the majority of patients and to the distribution of the analysed parameters. For example, patients who have previously undergone radical prostatectomy, or treated with a hypofractionated regimen, generally received a lower total dose. The close correlation between acute and late toxicity seems to confirm the existence of a “consequential late toxicity” in radiation-induced damage to the rectum. This seems to suggest the utility of close endoscopic monitoring in the follow-up of patients with severe acute rectal toxicity.

EP-1349
Long term results of a phase I/II study of moderate hypofractionated IGRT in prostate cancer
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Purpose or Objective: To report long term clinical outcomes in prostate cancer patients (pts) treated with IGRT Moderate Hypofractionated Simultaneous integrated boost (SIB) by Tomotherapy in a phase I-II study.

Material and Methods: Between 2005 and 2011, 211 pts were treated with IGRT Moderate Hypofractionated SIB in a phase I-II study. A subgroup of 128 pts (55 low-risk(LR), 33 intermediate-risk [IR] and 40 high-risk[HR]) with 5 years minimum follow up were considered for this analysis. LR and HR pts received 51.8 Gy on pelvic lymph-nodes (LN) and concomitant SIB to prostate up to 74.2Gy in 28 fr; LR pts were treated to the prostate up to 71.4Gy in 28fr. Androgen deprivation (AD) was delivered to 27% LR/57% IR/87% HR pts for a median time of 12.5, 13.7 and 15.5 months (m) respectively. Biochemical relapse free (bRFS) survival (Phoenix definition), cancer-specific (CCS) and overall survival (OS) actuarial curves were assessed. Selected clinical/dosimetry variables were tested as potential predictors of GI /GU toxicity and of BCR/CCS/OS (Cox test) .

Conclusion: The results of this analysis showed no correlation between treatment parameters and LRT. This unexpected result is likely to be related to the use of modulated RT techniques in the majority of patients and to the distribution of the analysed parameters. For example, patients who have previously undergone radical prostatectomy, or treated with a hypofractionated regimen, generally received a lower total dose. The close correlation between acute and late toxicity seems to confirm the existence of a “consequential late toxicity” in radiation-induced damage to the rectum. This seems to suggest the utility of close endoscopic monitoring in the follow-up of patients with severe acute rectal toxicity.