was irritated receiving 50.4 Gy. The comorbidities associated were: 21% diabetes, 62.5% high blood pressure, 40% cardiac pathology and 33% were with anticoagulant treatment. All our haematuria patients have been handled following the next algorithm: Blood Test (including platelets and liver parameters) and Urine Culture. If both are negative: Ultrasound (Kidney, urether and bladder). If haematuria goes on: Cystoscopy.

Results: With a median follow-up of 52.5 months (range 5-122 m), 48 patients (13%) had haematuria. At etiological factors we have found: Urine Infection 12 p (25%). Time 32 months (12-70 m), Bladder cancer 10 p (21%). Four of them a recurrence of a previous treated bladder tumour. Time: 32 months (3-120 m), RADIATION CYSTITIS 10 p (21%). Time: 13 months (6 - 38 m), Lithiasis 4 p (8%). Time: 25.5 months (26-30 m), Local progression of Prostate cancer 1 p (2%). Time: 72 months), Autolimited haematuria (Culture and image studies negatives). It does not repeat.: 9 p (19%). Time: 58 months (25-80 m) and Fatal haematuria (Exitus. Not known etiology): 2 p (4%). Time: 78 and 84 months).

Conclusion: In our experience, haematuria is a frequent pathology in patients treated with radiotherapy of prostate cancer. The etiology of it spreading in similar proportions, across the different causes found. The time of it presentation is important for the diagnostic. In the mind of the specialist must be different causes of it, NOT ONLY radiotherapy Cystitis taking in account that if it is due to radiotherapy it appears mainly, in the first two years after radiotherapy treatment.

EP-1339
Influence of leaf thickness on prostate VMAT about dosimetric-volumetric and delivering parameters
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Purpose or Objective: Volumetric modulated arc therapy (VMAT), a complex treatment strategy for intensity-modulated radiation therapy, has been established clinically. While 5 mm thick MLC (L50) is a usual for VMAT, we have been using 2.5 mm thick MLC (L25) from 2012 to treat the prostate cancer. So we compared dosimetric, volumetric and dose delivering parameters between L25 and L50.

Material and Methods: Twenty four cases were selected from our database. Those patients were treated for the prostate carcinoma in the feet-first prone position. Gantry angle range was 182 deg. to 178 deg. and collimation angle was set 0 deg. SmartArc system of Pinnacle3 was used with 6MVX physical data of Novalis Tx (L25) and 6MVX Siemens® ARTISTE physical data loaded on Varian Clinac-21 Ex (the base machine of Novalis) virtually (L50). The same consolidations for optimization were used. For example, Min Dose, D95 and Max Dose of PTV were 76 Gy, 80 Gy and 84 Gy, respectively. Rectal V40 was set to 20%. Wilcoxon rank sum test was applied to D98, D95, D50 and D02 of PTV, rectal V40, irradiation time and MU. To analyze relationships between these values and ROV grouped by L25 or L50, linear regression model was employed with analysis of covariance for the regression coefficients.

Results: Mean values of D98, D95, D50 and D02, V40, Time and MU were 75.8 Gy, 77.5 Gy, 81.2 Gy, 84.2 Gy, 20.3%, 82.7 sec and 646.4 for L25, and were 75.6 Gy, 77.3 Gy, 81.0 Gy, 83.8 Gy, 19.6 %, 149.9 sec and 741.6 for L50, respectively. Only those mean values of D02, V40 and Time were significantly different between L25 and L50 by Wilcoxon test (Table).

Conclusion: L25 and L50 plans were very similar from the dosimetric point of view (difference of D02 was significant but very small in value; 0.4Gy, L25-L50). From the volumetric (V40) point of view, difference was small (0.7%, L25-L50) but significant. In terms of dose delivery (Time), differences were remarkable and largely depend on the ROV especially in the cases of L50. We may use L50 with the expense of treatment time compared to L25.

EP-1340
Nomograms predicting the probabilities of having indications for adjuvant prostate radiotherapy
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Purpose or Objective: For patients with clinically localized prostate cancer with high probabilities to undergo adjuvant radiotherapy after radical prostatectomy (RP), radical radiotherapy may be a proper treatment option for saving time and medical costs. Our purpose is to develop nomograms combining PSA level, clinical T stage, and biopsy Gleason Score to predict probabilities of having indications for adjuvant radiotherapy including extraprostatic extension, positive margin, Gleason Score and 8-10 and to provide data for individualizing initial treatment options.

Material and Methods: We analyzed 214 men treated with RP between August 2013 and August 2015 at our hospital. Average age was 66 years. Men who enrolled in this study had a preoperative PSA level assessed before or at least 4 weeks after prostate biopsy, biopsy Gleason score, pelvic MRI and clinical T stage (TNM 2009 classification). Men were excluded for preoperative treatment with neoadjuvant hormonal therapy, or transurethral resection of the prostate because of potential influence on pathologic stage or PSA level. Preoperative predictors included PSA level, clinical T stage (T2a/b, T2c, T3a, T3b), and biopsy Gleason score (5-6, 3+4+7, 4+3=7, 8-10). These predictors were used in multivariable logistic regression analysis based nomograms to estimate the probabilities of extraprostatic extension, positive margin, Gleason Score 8-10 after RP, respectively. The predictive accuracy and discriminative ability of the
Results: 47% of the patients had extraprostatic extension, 36% had positive margin, and 20% had Gleason Score 8-10. Nomograms were developed for the predicted probabilities of having the indications of adjuvant radiation therapy (Fig 1ABC). The calibration curve for probabilities showed good agreement between prediction by nomogram and actual observation (Fig 1DEF). The C-index of the nomograms for predicting extraprostatic extension disease, positive margin, and Gleason Score 8-10 were 0.799, 0.746, 0.879, respectively. The risk of having one of the indications of adjuvant radiation therapy increased with increases in predictors except for T stage for predicting Gleason Score 8-10 (p=0.25).

Conclusion: We produced nomograms that may accurately predict the probabilities of having indications for adjuvant radiation therapy after RP in men with localized prostate cancer, which may contributes to properly selecting initial treatment option.

Purpose or Objective: To describe the F-18fluorochrome PET/CT activity after biochemical failure in localized prostate cancer. To analyze the response to cPET/TC-guided salvage therapy.

Material and Methods: N: 80 patients(p) with cPET/TC between 2006-2012, 64p at time of biochemical failure. Initial treatment: 15p (18.5%), 37p T2 (46.4%), 23p T3 (28.8%) and 5p T4 (6.3%). N0 (87.5%). Gleason score: 6: 30p (37.6%), 7: 27p (33.8%), ≥8: 20p (25.1%), missing: 3p (3.8%). Baseline median PSA 9.0 ng/ml [0.9-11.5].

Results: Median time from diagnosis to cPET/TC failure: 44.03 months [2.37-126.83]. Median PSA values were 1.69 ng/ml [0.1-70.6].

cPET/TC local failure(LF) occurred in 39p (60.9%), nodal failure(NF) in 15p (23.4%) and metastatic failure(MF) in 10p (15.6%).

With a median follow up of 55 m after rescue treatment, 15p (23.4%) had biochemical failure again. This would permit personalization and optimization of RT for each prostate cancer patient.