Material and Methods: Thirty-four patients were included in a period from 1994 until 2013. Patients’ charts were reviewed to obtain patients’ characteristics. DVH parameters were analyzed after reconstruction of the original brachytherapy plan plus delineation of intermediate risk CTV (CTVIR) and organs at risk. The target volume at time of BT was the GTVres and was defined by the treating doctor based on clinical examination and CT scan. The CTVIR was defined by the tumor extension at time of diagnosis. Survival rates were calculated using the Kaplan-Meier method. Morbidity was scored by CTCAE v3.0.

Results: Nine (26%) patients had FIGO stages I; 13 (38%) II; 5 (15%) III and 7 (21%) IVA. Median age at diagnosis was 68 years (33-91). Median follow-up was 37 months (3-224). Thirty-two patients received whole pelvic external beam radiotherapy (EBRT) to a median dose of 46 Gy (45-50.4 Gy), followed by BT in 31 patients; two patients received BT alone. The median D90 and D98 of the GTVres were 68 Gy and 67 Gy respectively, with a median V100 of 88%. The median D90 and D98 of the CTVIR were 65 Gy and 61 Gy respectively, with a median V100 of 62%. Complete remission at 3 months was achieved in all but one patient. Overall survival (OS) rates at 2- and 5-years were respectively 76% and 41%. Eight (24%) patients had any grade ≥3 toxicity. Local recurrences were seen in seven (21%) patients of whom three had an isolated local recurrence. Patients’ and treatment characteristics of this group are shown in Table 1. Although the coverage of the GTVres seemed adequate, in retrospect it was often disputable if the tumor at BT was fully covered due to poor visibility of the tumor on CT scan.

Figure 1

Table 1

Conclusion: The combination of EBRT and BT with or without concomitant chemotherapy provides reasonable outcomes in terms of tumor control and toxicity. However, there is still room for improvement. This study was too small to illustrate clear dose-effect relationships. In general, the prescribed dose on target at time of BT (GTVres) seemed low. In addition, coverage of the CTVIR was poor, which can however be explained by the fact that until recently our target at BT was exclusively based on GTVres. Finally, the use of MRI at time of BT seems necessary to better define the target.

EP-1331
Cancer of uterine cervix: PET-CT, IMRT and HDR.
M. Garcia-Aranda1, X. Chen1, A. Montero1, J. Valero1, R. Alonso2, D. Zucca2, R. Ciervide2, M. Lopez2, B. Alvarez2, S. Payano1, E. Sanchez2, O. Hernandez2, C. Rubio1
1Hospital universitario HM Sanchinarro, Radiation Oncology Department, Madrid, Spain
2Hospital universitario HM Puerta del Sur, Radiation Oncology Department, Madrid, Spain

Purpose or Objective: To evaluate the treatment results, and complication rates in patients with locally advanced cervical cancer after external beam radiotherapy (EBRT) and high-dose rate (HDR) brachytherapy with dose escalation.

Material and Methods: All patients with locally advanced cervical cancer (FIGO: IB 7 patients, II 10 patients, III 7 patients, IV 4 patients) treated with radical radiotherapy in our center from 2007 to October 2015 were reviewed. Twenty eight patients were treated with EBRT using intensity-modulated radiation therapy (IMRT) technique following by HDR brachytherapy +/- chemotherapy. Planification included CT (50%) or PET-CT (50%) for GTV delineation. The most common prescription was 50.4 Gy (1.8Gy per fraction) for pelvic lymph nodes +/- paraaortic lymph node with concomitant boost up to 60, 48 Gy (2,16Gy per fraction) for macroscopic nodal disease and parametrium affectation. HDR brachytherapy was applied using tandem (25 Gy in 5 fractions) in most patients. Toxicity was assessed according to RTOG-EORTC criteria. All statistical analysis was performed using SPSS vs 22.0.

Results: There was no grade 3 acute toxicity associated with EBRT. Only one case of grade 4 acute toxicity was observed after HDR gynecological brachytherapy. The median age was 51 years (range 39 - 81). The median of follow up was 30 months (range 4 - 85). The actuarial progression-free survival was 77% at 36 months. Median time to local progression has not been reached. The median overall survival was 30 (range 4-85) month.

Conclusion: Radical radiotherapy +/- chemotherapy is still a standard treatment in locally advanced uterine cervical cancer with good local control and global survival. Dose escalation is possible using PET-CT and IMRT which allow better conformation and better tolerance.

EP-1332
Clinical results of Nimotuzumab Plus DDP and concurrent radiotherapy for primary cervix cancer
L. Zhu1, S. Tian1, A. Qu1, H. Wang1, X. Li1, Y. Jiang1, H. Sun1, L. Lin1, J. Wang1
1Peking University Third Hospital, Radiation Oncology, Beijing, China

Purpose or Objective: To determine clinical efficacy and toxicity of weekly nimotuzumab plus cisplatin concurrent with intensity-modulated radiotherapy in Chinese women with locally advanced cervical cancer.

Material and Methods: Between December 2013 and July 2015, a total of 27 patients with primary carcinoma of the cervix, FIGO stage IB1 to IVA, squamous cell carcinomas confirmed by histology were enrolled into this study. 26 patients received intensity modulated radiotherapy and 5 – 6 fractions HDR brachytherapy, 1 patient received intensity modulated radiotherapy followed by surgery because she had rectum carcinoma at the same time. Chemotherapy scheme was 200 mg nimotuzumab and 40 mg/m2 cisplatin weekly for six cycles. 2 patients (ages: 78 – 79) received only 200 mg nimotuzumab weekly for six cycles. The patients were