## CASE 1. Para-Aortic LN positive Cervix Cancer

History: 46 yo with 2 month history of daily vaginal bleeding. Physical reveals a 3 cm mass protruding from the cervical os. The cervix is diffusely expanded, 5 cm in width no visible disease on the cervix. US shows a 11 cm uterus and a thickened endometrial stripe. Biopsy shows poorly differentiated adenocarcinoma, HPV positive. There is minimal bilateral parametrial extension, Stage IIB.


CASE 1. Para-Aortic LN positive Cervix Cancer

T2 MRI post 50.4 Gy with Tandem in place.


Sagittal MRI with tandem in place after 50.4 Gy .


## Sagittal CT post 50.4 Gy with tandem in place.



Sagittal MRI: HRCTV and doses.


## Case 2. IB1 Cervix in a 42 yo

- Presents with 2 month history of vaginal bleeding. 2 cm cervical mass on exam. HSIL on pap smear. Biopsy shows squamous cell carcinoma with questionable LVSI. Stage IBI
- PET/CT showed avid cervical mass and questionable R ovary vs $R$ Internal Iliac LNs
- Lap radical hyst was attempted. FS showed + R Int Iliac LNs, 5/21. Left pelvic LNs were negative.
- Should the hysterectomy be aborted?


## Case 2. IB1 Cervix in a 42 yo PET/CT: R lliac region



## Case 2. IB1 Cervix in a 42 yo PET/CT: Cervix region



MRI T2: Cervix, Sagittal


T2 MRI:
Response after 27 Gy

## MRI T2: HRCTV



## Case 2. IB1 Cervix in a 42 yo

| Prescribed Dose |  |  |  |  |  |
| ---: | ---: | ---: | ---: | :---: | :---: |
| TX Modality / Site | Dose/Fx | \# of Fx | Tot. Dose |  |  |
| EBRT | 1.8 Gy | 25 | 45.0 Gy |  |  |
| Primary | 0.0 Gy | 0.0 | 0.0 Gy |  |  |
| Parametria LN Bst | 0.0 Gy | NA | 0.0 Gy |  |  |
| Pelvic LN Bst |  |  |  |  |  |
| HDR Brachytherapy |  |  | 22.8 Gy |  |  |
| Prescribed Pnt A |  | Dose Sum (EBRT+HDR) | 67.8 Gy |  |  |
| PntA avrg - Equiv. EBRT of 2 Gy per fraction (EQD2Gy) | 72.0 Gy |  |  |  |  |
| PntB. avrg - Equiv. EBRT of 2 Gy per fraction (EQD2Gy) | 50.3 Gy |  |  |  |  |


| Tumor Dose Summary (EBRT + HDR) |  |  |
| ---: | :---: | :---: |
| HR CTV | $\mathrm{EQD}_{2}$ D90 | 85.1 Gy |
|  | Avrg V100 | $99.2 \%$ |


| Organs at Risk EQD ${ }_{2}$ Summary (EBRT + HDR) |  |  |
| ---: | :---: | :---: |
| Name | $\mathrm{Do}_{0} 1 \mathrm{cc}$ | $\mathrm{D}_{2 \mathrm{cc}}$ |
| Bladder | 77.5 Gy | 64.1 Gy |
| Rectum | 66.7 Gy | 58.2 Gy |
| Sigmoid Colon | 57.6 Gy | 51.3 Gy |

## CASE 3. Cervix cancer, post op

History: Preop: A 42 yo woman with stage IBI SCC of the cervix. Tumor measured 2 cm in size. Post op: A radical hysterectomy, BSO and pelvic LN dissection was performed. Pathology revealed a 1.2 cm well to moderately differentiated SCC with 1.4 cm invasion, margins were close $<0.1 \mathrm{~cm}$ to deep parametrial margin, LVI present, 0/18 LNs positive.


## CASE 3. Cervix cancer, post op



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## Questions:

Should she have adjuvant brachytherapy?
How would you prescribe it?
Comment on the dosimetry?


## CASE 3. Cervix cancer, post op

## Questions:

What is abnormal?
Are other imaging test warranted?
How would you work this up?
How would you treat this?


